

The
FEB. 1915
**PHOTOGRAPHIC
TIMES**

AN
INDEPENDENT
ILLUSTRATED
MONTHLY
MAGAZINE
DEVOTED
TO THE
INTERESTS OF
PICTORIAL
AND
SCIENTIFIC
PHOTOGRAPHY



THE PHOTOGRAPHIC TIMES PUBLISHING ASSN.
135 WEST FOURTEENTH STREET
NEW YORK, N. Y.

Price **15** Cents

Knowledge is Power

The amateur photographer should know all about

Cyko Paper

whether he makes his own prints or has them made by a professional finisher.

He should take no excuse for a dull, flat, lifeless print on the ground that the film is too thin.

CYKO CONTRAST (Blue Label) takes care of that defect. Nor should he be satisfied with a harsh, black-and-white print if



the film negative is hard, for CYKO SOFT (Red Label) is there to produce soft gradations.

A well timed, perfectly balanced negative should be put on NORMAL CYKO (Yellow Label).

The finisher is interested in the work of the amateur *who knows*.

Anso Company

Binghamton, N. Y.

A Film Comparison

Photographic
films are
composed of

1st—the nitro-cellulose base,
that is the transparent, flex-
ible, ribbon-like material;

2nd—the sensitive gelatino-
bromide emulsion coated
on the transparent material;

3rd—the paper, wooden spools
and other items necessary
to produce the daylight car-
tridge.

The nitro-cellulose base of all good films is made according to and under the Goodwin patent, recently upheld by the courts.

To ascertain the superiority of

Ansko Film

made by the Goodwin Film & Camera Co. a simple test is sufficient.

Load your camera with ANSCO FILM, set shutter at, say, $\frac{1}{25}$ of a second and your lens at the largest opening. Snap the entire roll on the same subject decreasing the lens opening for each successive exposure. Then load your camera with the film you wish to compare and expose it immediately on the same subject and in exactly the same way the ANSCO film was exposed.

The result will tell the story.

Ansko Company, Binghamton, N. Y.

OUR COMBINATION OFFER

The following Books and Albums with one year's subscription to "THE PHOTOGRAPHIC TIMES" will be supplied at rates as below:

Photography in Old England	-	-	.	By W. I. Lincoln Adams
Retail Price	-	-	-	\$2.50
THE PHOTOGRAPHIC TIMES, one year,	-	-	-	1.50
				<u>\$4.00</u>
Both for	-	-	-	\$3.50

Landscape and Figure Composition	-	-		By Sadakichi Hartmann
Retail Price	-	-	-	\$3.00
THE PHOTOGRAPHIC TIMES, one year,	-	-	-	1.50
				<u>\$4.50</u>
Both for	-	-	-	\$3.50

Photography	-	-	-	By E. O. Hoppe, F. R. P. S., and others
Retail Price	-	-	-	\$2.00
THE PHOTOGRAPHIC TIMES, one year,	-	-	-	1.50
				<u>\$3.50</u>
Both for	.	-	-	\$3.00

Saturday with My Camera	-	-	-	By Stanley E. Johnson
Retail Price	-	-	-	\$1.50
THE PHOTOGRAPHIC TIMES, one year,	-	-	-	1.50
				<u>\$3.00</u>
Both for	-	-	-	\$2.50

Sunlight and Shadow	-	-	-	By W. I. Lincoln Adams
Retail Price	-	-	-	\$2.50
THE PHOTOGRAPHIC TIMES, one year,	-	-	-	1.50
				<u>\$4.00</u>
Both for	-	-	-	\$2.50

Photographic Amusements	-	-	-	By W. E. Woodbury
Retail Price	-	-	-	\$1.00
THE PHOTOGRAPHIC TIMES, one year,	-	-	-	1.50
				<u>\$2.50</u>
Both for	-	-	-	\$1.50

	Album	Retail Price	With a Year's Subscription to Photographic Times
"PHOTOGRAPHIC TIMES" ALBUM,	No. 1	\$1.00	\$2.00
"	No. 2	1.20	\$2.20
"	No. 3	1.60	\$2.60
"	No. 4	2.40	\$3.40
"	No. 5	2.80	\$3.80

Any of these Books or Albums will make an acceptable gift to anyone interested in Photography

Photographic Times Publishing Association
135 West Fourteenth Street, New York

THE AMERICAN ANNUAL OF PHOTOGRAPHY 1915

29th Edition

THE most interesting and the most beautifully illustrated photographic annual in the world.

With over 200 illustrations selected from the best American and European work of the year.

32 FULL PAGE ILLUSTRATIONS IN COLOR
A beautiful photographic print as a frontispiece

PAPER EDITION, \$0.75 CLOTH EDITION, \$1.25

Postage extra according to zone (zones given below)

POSTAGE:—1st zone, 1 to 50 miles, 6c.; 2nd zone, 50 to 150 miles, 6c.; 3rd zone, 150 to 300 miles, 8c.; 4th zone, 300 to 600 miles, 11c.; 5th zone, 600 to 1000 miles, 14c.; 6th zone, 1000 to 1400 miles, 17c.; 7th zone, 1400 to 1800 miles, 21c.; 8th zone, all over 1800 miles, 24c.

TRADE AGENTS: **GEORGE MURPHY, Inc., 57 East 9th St., New York**

Send for our New Postpaid Mail-Order Cash Catalogue.

THE BRITISH JOURNAL PHOTO ALMANAC 1915

FOR 53 years the British Photo Almanac has been the most widely read book on photography, not only throughout the British Empire, but over the entire globe. The 1915 edition will be 30,000, and will contain many new and valuable features. It will be ready for distribution in February 1915.

Send Your Orders Now

PAPER EDITION, \$0.50 CLOTH EDITION, \$1.00

Postage extra according to zone (zone rates given below)

PAPER EDITION POSTAGE:—1st zone, 1 to 50 miles, 6c.; 2nd zone, 50 to 150 miles, 7c.; 3rd zone, 150 to 300 miles, 10c.; 4th zone, 300 to 600 miles, 15c.; 5th zone, 600 to 1000 miles, 20c.; 6th zone, 1000 to 1400 miles, 25c.; 7th zone, 1400 to 1800 miles, 31c.; 8th zone, all over 1800 miles, 36c.

CLOTH EDITION POSTAGE:—1st zone, 1 to 50 miles, 7c.; 2nd zone, 50 to 150 miles, 8c.; 3rd zone, 150 to 300 miles, 12c.; 4th zone, 300 to 600 miles, 19c.; 5th zone, 600 to 1000 miles, 26c.; 6th zone, 1000 to 1400 miles, 33c.; 7th zone, 1400 to 1800 miles, 41c.; 8th zone all over 1800 miles, 48c.

Pictures Mounted With HIGGINS' PHOTO MOUNTER



Have an excellence peculiarly their own. The best results are only produced by the best methods and means—the best results in Photograph, Poster, and other mounting can only be attained by using the best mounting paste—

HIGGINS' PHOTO MOUNTER

(Excellent novel brush with each jar.)

At Dealers in Photo Supplies, Artists' Materials, and Stationery. A 3-oz. jar prepaid by mail for thirty cents, or circulars free, from

**CHAS. M. HIGGINS & CO. NEW YORK CHICAGO
MANUFACTURERS LONDON**

Main Office, 271 Ninth Street, Factory, 240-244 Eighth St., BROOKLYN, N. Y., U. S. A.

"PAPERS OF QUALITY"

AT THE OFFICE

When ordering stationery for business use, and a good, snappy bond paper is desired at medium cost, specify

Edgewater Bond or Elras Bond

Your printer will know

**JOHN F. SARLE, 58 John Street,
Sole Agent for New York**

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.

Help Others by Helping Yourself

¶ For a limited period, we will send THE PHOTOGRAPHIC TIMES together with a copy of PHOTOGRAPHIC AMUSEMENTS **FREE** to anyone who will send us Five (5) New Yearly Subscriptions at the regular yearly subscription rate of \$1.50. We will also send to each one of the five new subscribers a copy of PHOTOGRAPHIC AMUSEMENTS **FREE**. The regular price of PHOTOGRAPHIC AMUSEMENTS is \$1.00.

¶ In order to assist you in securing new subscriptions, we are willing to send specimen numbers to any names you may send us for that purpose, including also descriptive circulars of our combination offers, THE PHOTOGRAPHIC TIMES Print Competition, and other descriptive matter.

¶ We are putting so much energy and money into our magazine to make it of the greatest possible value and interest to our readers, that we feel we should make every effort to bring it to the attention of all those who are interested in photography. In order to reach the greatest number it is necessary to have the co-operation of our present subscribers and readers, and we therefore make you the above offer as an inducement for your friendly assistance.

“LANDSCAPE AND FIGURE COMPOSITION”

By **SADAKICHI HARTMANN**

(SIDNEY ALLAN)

Illustrated by more than 150 Photo-Engravings from Celebrated Paintings
and Original Photographs



Mr. Hartmann is a well known writer and critic on art subjects. He is an expert with the pencil and brush, as well as with the camera, and his instructions, therefore, may be depended upon as thoroughly reliable, practical and helpful. This handsome volume by Mr. Hartmann includes the chapters on Landscape and Figure Composition which appeared in “The Photographic Times,” with all the original illustrations. The articles themselves have been carefully revised for re-publication in book form, with new matter added. The following suggests the scope of the book.

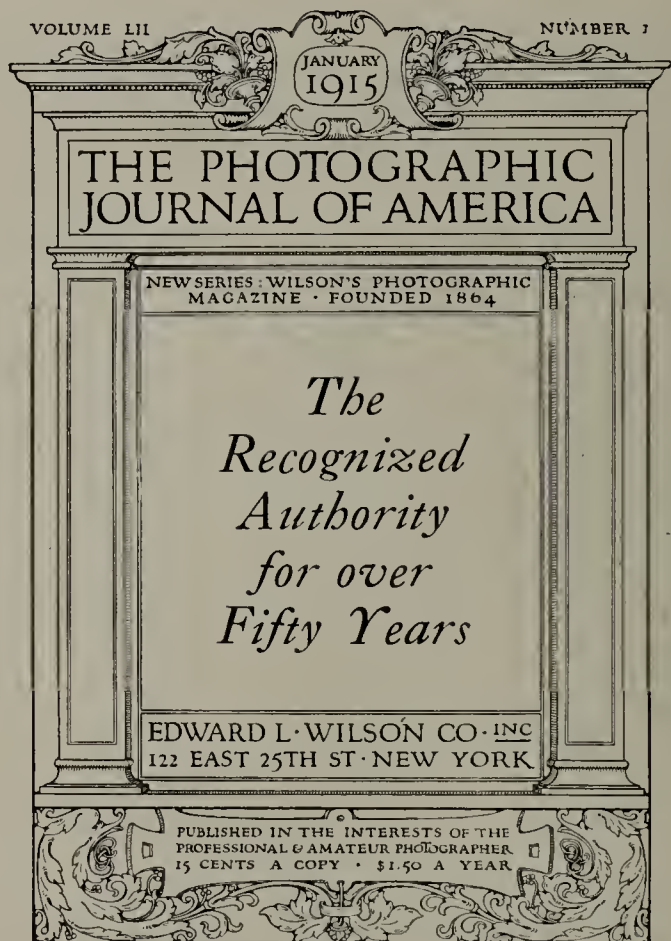
Geometrical Forms of Composition	Different Principles of Representation
The Point of Interest	Background Arrangements
Line Combinations	Foreground, Middle Distance and Distance
A Method of Spotting	One-Figure Composition
The Placing of Figures	Two-Figure Composition
Composition of Three or More Figures	

It is printed in large quarto size, on heavy woodcut paper, and is handsomely bound in red cloth, with gilt lettering, and full gilt edges.

For sale by all dealers in photographic materials, book-sellers, etc. Price, in a box, sent post paid on receipt of **\$3.00**

The Photographic Times Publishing Association
135 West Fourteenth Street, New York

THE OLDEST Photographic Magazine in America



Original articles and illustrations by the world's leading photographers
 Live, practical papers on how to do things
 Artistic photography in the studio and field
 Formulas and processes, and all the news
 Notable print competitions

\$1.50 a year, in advance

Subscription reduced to

Trial 4 mos., fifty cents

EDWARD L. WILSON CO., Inc.

THE CAMERA BUILDING

122 East 25th Street

New York

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.

The Best Books for The Practical Photographer

A. BROTHERS—A Manual of Photography

Second Edition
Revised

Contents.—PART I. Introductory. Historical Sketch. Chemistry of Photography. Optics of Photography. Light in Photography. PART II. Processes. PART III, Apparatus. PART IV. Materials used in Photography. PART V. Applications of Photography. Practical Hints.—Index.

Illustrations in text and 37
plates, 385 pages, 8vo. Cloth, Net. **\$5.50**

CHARLES R. GIBSON—The Romance of Modern Photography

Contents.—How Photography Came to be Invented. Early Photographs on Silvered Plates. Instantaneous Photography. Can We Photograph in Colors? More About Color Photography. Color Photography Without Colored Screens. The Making of Book Illustrations. The Three-Color Process of Printing. Photographing the Invisible. More Invisible Rays. Telegraphing Photographs. Some Interesting Achievements.

63 illustrations, 345, pages,
Crown 8vo. Cloth, Net, **\$1.50**

W. WALLINGTON—Chats on Photography

An Easy Guide
For Beginners

Contents.—An Outline of the Elementary Photographic Process. A Trial Trip With the Camera. Cause and Remedy of Defects. After-Treatment of the Negative. The Printing Process. Self Toning Papers. Printing in Platinum. Printing on Gaslight Papers. Bromide Papers. Colors on Bromide Prints. Enlarging on Bromide Papers. Ortho-chromatic Plates. Tips from a Worker's Notebook.

Illustrated, 182 pages,
12mo Cloth, net, **\$1.25**

Sent Prepaid on Receipt of Price

EDWARD L. WILSON CO., Inc., 122 East 25th Street, New York City

F. W. ANDERSON & CO.

Paper

34 Beekman St.,

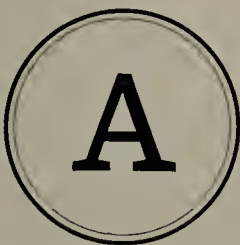
TELEPHONES: { 4760 }
 { 4761 } BEEKMAN

New York.

SOLE NEW YORK AGENTS:

BANKERS LINEN and BANKERS LINEN BOND

Made in Flat Papers, Typewriter Papers, and Envelopes



"CRANE BROS. ALL LINEN"

"SAXON BOND"

"PURE LINEN STOCK"

"CUSTOM HOUSE BOND"

"CROWN LEGHORN LINEN"

"STOCK EXCHANGE BOND"

"GOVERNMENT LINEN"

"NEW YORK BOND"

"WALL STREET LINEN"

"TUNXIS BOND"

"NATIONAL EMBLEM BOND"

"VICTORIA BOND"

"MAGNA CHARTA BOND"

"EXTRA (A) BOND"

"ALEXIS BOND"

"CITY BOND"

Writing and Cover Papers in all Qualities

"GREYLOCK LINEN LEDGER"

ALSO AGENTS FOR

Crane & Company's Celebrated Bond and Parchment Papers

Byron Weston Company's Linen Ledger and Record Papers

L. L. Brown Paper Company's Linen Ledger and Record Papers

Crane Brothers "Gold Medal" Linen Ledger

The Photographic Times

With Which is Combined

The American Photographer and Anthony's Photographic Bulletin

An Illustrated Monthly Magazine Devoted to the Interests of Pictorial and Scientific Photography

Edited by W. I. LINCOLN ADAMS

WILSON I. ADAMS, Associate Editor

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION

135 West 14th Street, New York

GEORGE B. CARTER
President

CLARENCE L. USHER
Secretary-Treasurer and Business Manager

Volume XLVII

FEBRUARY, 1915

No. 2

CONTENTS

WINTER IN THE PARK—Cover Design.....	Floyd Vail
EVELYN—Frontispiece.....	Mrs. Wilma B. McDevitt
THE PHOTOGRAPHIC TIMES PRINT COMPETITION	49
STUDY—Illustration.....	Wm. H. Fisher 50
REVERIE—Illustration.....	Miss Belle M. Whitson 50
PORTRAIT—Illustration.....	John A. Schreurs 51
PORTRAIT STUDY—Illustration.....	Miss Dorothy E. Wallace 52
THE ARTIST—Illustration.....	Miss Dorothy E. Wallace 52
CLEO—Illustration.....	Chas. Lindenschmit 53
LAURIE—Illustration.....	Carl Peterson 54
PHOTOGRAPHING PRINTS UPON INDIA PAPER AND JAPANESE VELLUM.....	Alfred J. Jarman 55
.....	John A. Schreurs 57
PORTRAIT—Illustration.....	John A. Schreurs 57
A SCHOOL GIRL—Illustration.....	Mrs. Wilma B. McDevitt 57
BETTY—Illustration.....	Mrs. Wilma B. McDevitt 57
JULIA BELLE—Illustration.....	Miss Belle M. Whitson 57
PORTRAITURE WITH A HAND CAMERA—Illustrated.....	F. C. Lambert 61
LENTEN TIME PHOTOGRAPHY—Illustrated.....	Felix J. Koch 65
WE MUST PROTECT THE RECORD PHOTOGRAPHER.....	L. C. Bishop 67
THE PEASANT GIRL—Illustration.....	Chas. Lindenschmit 69
PORTRAIT OF A CHILD—Illustration.....	J. P. Buell 69
EIGHTY AND EIGHT—Illustration.....	Chas. Lindenschmit 69
THE PROFESSOR—Illustration.....	Chas. Lindenschmit 69
A SUMMARY ON LENSES—Illustrated.....	B. Springsted 74
PHOTOGRAPHING SMALL OBJECTS WITH A COMMON CAMERA..	C. L. Chamberlin 79
EDITORIAL COMMENT	80
THE MOUNTAIN MILL—Illustration.....	Frank von Gillmoe 81
DISCOVERIES.	82
AMONG THE CAMERA CLUB.....	85
PHOTOGRAPHIC REVIEWS	87
WASHINGTON ARCH, NEW YORK—Illustration.....	Floyd Vail 88
TRADE NOTES	89

SUBSCRIPTION RATES one dollar and fifty cents a year, payable in advance. Foreign Postage 50 Cents, Canadian Postage 25 Cents. Single copies 15 cents. Subscriptions to the *Photographic Times* received by all dealers in photographic materials in this and foreign countries, also the American News Co. and all its branches.

POSTAGE IS PREPAID by the publishers for all subscriptions in the United States, Hawaiian Islands, Philippine Islands, Guam, Porto Rico, Tutuila, Samoa, Shanghai, Canal Zone, Cuba, and Mexico. For all other countries in Postal Union, except Canada, add fifty cents for Postage. Canadian postage 25 cents.

CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent one week before the change is to take effect.

DISCONTINUANCES.—If a subscriber wishes his copy of the magazine discontinued at the expiration of his subscription, notice to that effect should be sent. Otherwise it is assumed that a continuance of the subscription is desired.

HOW TO REMIT.—Remittances should be sent by Draft on New York, Express Order, or Money Order, payable to order of *The Photographic Times Publishing Association*. Cash should be sent in Registered letter.

CONTRIBUTIONS.—All literary contributions, correspondence, "Queries," etc., should be addressed to *The Editor*; all advertising matter to the Advertising Manager.

LETTERS should be addressed:

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION,

135 West 14th Street, New York.



EVELYN

First Prize in THE PHOTOGRAPHIC TIMES Print Competition

Mrs. Wilma B. McDevitt

The Photographic Times

WITH WHICH IS COMBINED

The American Photographer and Anthony's Photographic Bulletin

VOLUME XLVII

FEBRUARY, 1915

NUMBER 2

THE PHOTOGRAPHIC TIMES PRINT COMPETITION

THE Portrait Competition of the series of Print Contests which are being conducted by THE PHOTOGRAPHIC TIMES, has resulted in a higher average of merit on the part of the successful contestants than has characterized any of the previous competitions. The actual number of prints was not so great as in some of the other contests, probably because of the subject, which is one which cannot be successfully treated by as many photographers, particularly amateurs, as landscape subjects; but there was a very good representation of pictures, however, and a large number of contestants. One of our most successful competitors in the past, Mr. F. E. Bronson, undoubtedly would have been awarded at least honorable mention, or high commendation, if his pictures had arrived in time; but, in justice to the other contestants, who had their prints in the hands of the Judges on the closing day, it did not seem quite fair to await the arrival of his prints. Other contestants were also a day or two late, which debarred them from a place in the contest. Some of these pictures may be shown in later numbers of THE PHOTOGRAPHIC TIMES.

After very careful consideration of the contesting prints, many of which were very close in their order of merit, the Judges awarded First Prize to Mrs. Wilma B. McDevitt for her beautiful child picture entitled "Evelyn," which occupies the place of honor in this number of the magazine. Mrs. McDevitt's winning print is an enlargement on Cyko paper from a 5 x 7 plate made in a studio camera with a Voightlander lens. The exposure was five seconds, on a rather dull day, Seed Gilt Edge Plate No. 30 being used, and the developer was Eastman Plate Tank Powder. This print was very effectively mounted on gray clouded paper, which, in turn, had a larger sheet of lighter gray support. We consider this picture one of the very best child portraits we have seen for a long time.

The Second Prize was awarded Mr. John A. Scheurer, who won first prize in our last contest for his picture entitled an "Interpretive Dancer." Mr. Scheurer's picture is a particularly fine example of portraiture, effectively mounted with an appropriate and artistic framing, which we reproduce with the



STUDY Wm. A. Fisher
Second Honorable Mention in THE PHOTO-
GRAPHIC TIMES Print Competition



REVERIE Miss Belle M. Whitson
First Honorable Mention in THE PHOTO-
GRAPHIC TIMES Print Competition

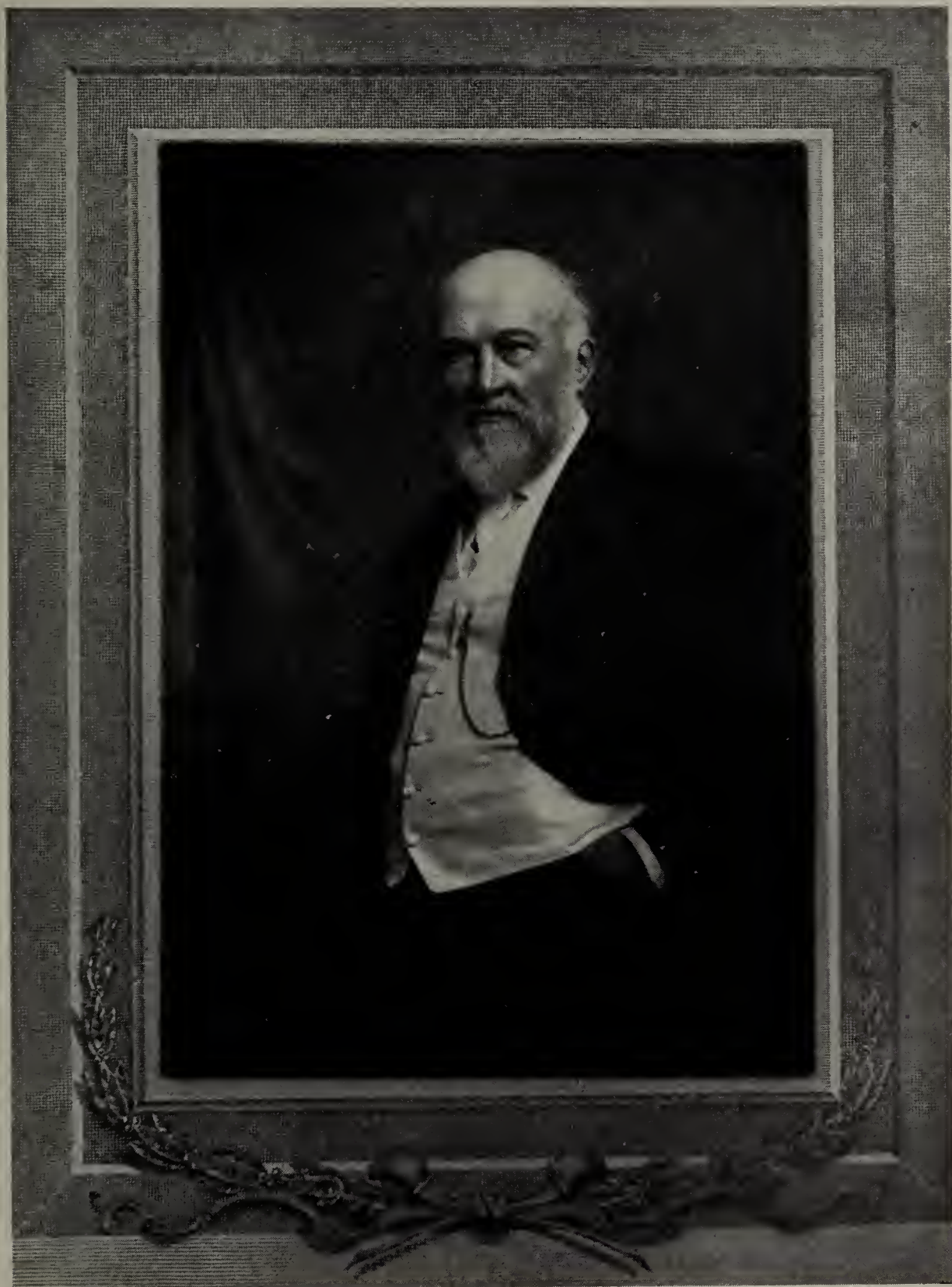
portrait itself. A Cramer Banner Plate was used, a Goerz Lens, and Haloid Paper of a Sepia tone.

Third Prize was given Mr. Charles A. Lindenschmidt, who received Honorable Mention in a previous competition. His winning print was one of several excellent examples of portraiture, and is entitled "Cleo." It was made with an ordinary side light, in the home, exposure three seconds, stop F/8, on a Hammer Blue Label Plate, developed with Metol Hdyrachonine, and printed on Aristo Platino Paper, toned in gold; the lens was a Goerz Dago No. 5. It is pleasant to note that a contestant who received Honorable Mention in previous exhibitions, had improved to the extent of being awarded a full prize.

First Honorable Mention is given to Miss Belle M. Whitson, for her charming child portrait entitled "Reverie." Miss Whitson is a new contestant, and we hope she will exhibit in future competitions.

Second Honorable Mention is given Mr. Wm. H. Fisher for his attractive portrait of a lady. This picture is particularly well posed, with well arranged drapery, and is developed and printed with taste, but it would have been a little more effective if the illumination on the face had been slightly stronger.

Third Honorable Mention is given to Mr. Carl A. Peterson for his typical boy portrait entitled "Laurie." Mr. Peterson has been highly commended in previous competitions, and shows decided improvement in his work. We hope



PORTRAIT

John A. Schreurs

Second Prize in THE PHOTOGRAPHIC TIMES Print Competition



PORTRAIT STUDY



THE ARTIST Miss Dorothy E. Wallace

Highly Commended in THE PHOTOGRAPHIC TIMES Print Competition

he will keep on trying, for we feel sure that he will ultimately be successful in landing one of the prizes. This particular print might have been improved if it had not been enlarged quite so much, as it produces a certain coarseness which otherwise would have been avoided; but, with the coarseness referred to, there is a vigor which gives the print a fine strength.

The following excellent examples of portraiture, all of which are reproduced in this number of the TIMES, received High Commendation, and in many competitions would have been successful in carrying off prizes, for they are all in the prize-winning class: "Profile of a Lady," by John A. Schreurs, winner of the Second Prize; "Betty," by Mrs. McDevitt, who secured First Prize. Mrs. McDevitt also received High Commendation for her "School Girl;" Miss Belle M. Whitson, who received First Honorable Mention, is highly commended for her "Julia Belle;" and Miss Dorothy E. Wallace for her "Portrait Study," and a full length portrait of a lady, as well as her "Artist." Mr. Charles Lindenschmidt, winner of the Third Prize, is highly commended for his "Peasant Girl," "Eighty and Eight" and "The Professor." Mr. John B. Buell, who won



CLEO

Chas. Lindenschmit

Third Prize in THE PHOTOGRAPHIC TIMES Print Competition



LAURIE

Carl Peterson

Third Honorable Mention in THE PHOTOGRAPHIC TIMES Print Competition

first prize for a former competition, is highly commended for his portrait of a child.

Other pictures, not good enough for High Commendation, but which pleased the Judges, are the following: "My Wife's Portrait," by Herbert Jackson, which would have been better if the top light had been somewhat screened; "Romeo and Juliette," by Mrs. L. P. Van Woert, a rather odd subject, well executed; "In the October Woods," an outdoor portrait, and "Nearing Dinner Time," a side light portrait, by Mrs. M. L. Swingle; "Christine," by Carl Peterson; "Child's Portrait," by Miss Whitson; "The Start of the Voyage," an attractive outdoor child portrait, and "O, Look!" a similar subject, by R. P. Hollaway.



PHOTOGRAPHING PRINTS UPON INDIA PAPER AND JAPANESE VELLUM

BY ALFRED J. JARMAN

THE making of photographic prints upon very thin paper presents a few difficulties that do not exist in the coating or preparing of papers of a thicker variety; consequently, to prepare these papers successfully a different method of working is necessary, because paper of such extreme thinness cannot be floated upon a solution or an emulsion with any degree of success. Occasionally a few small metal spots may make their appearance upon the paper when sensitized, in this instance the spot being visible, the paper may be so placed as to bring the spot in some unimportant part of the negative, for instance, in the deepest shadows. As this defect does not often occur, there need be no fear of spoiling much paper on this account.

A few utensils will be required, which are of the simplest description. In the first place, select the paper required; then place a faint pencil mark upon the back of each sheet. This will facilitate matters when the paper is prepared. Now procure a plain glass plate, an 11 x 14 is a very suitable size; a disused negative from which the film has been stripped will prove to be just the thing; also a few sheets of white blotting paper; two rubber-set camel's hair brushes, two inches wide; two tea-cups and saucers; a couple of four-inch-diameter glass funnels; a ten-cent package of absorbent cotton; two dozen wood clips; some No. 16 B. & S. gauge copper wire; a few screw eyes, and a cake of paraffin. The tips only of the clips must be dipped into a very hot solution of paraffin. This will prove to be a preventive of the clips sticking to the paper when coated, or becoming contaminated with the chemical solutions.

Either of the following formulæ may be employed for the purpose. All are capable of giving good results. The following is the salting solution for the first formula:

FORMULA NO. 1

Distilled water	10 fluid ounces
Gelatine (a clear soft variety)	10 grains
Common salt	50 grains
Chloride of ammonium	50 grains

Cut the gelatine into shreds; allow them to soak for half an hour, together with the salts in the distilled water. Then place the vessel into hot water, not necessarily boiling. Allow it to stand in this until the gelatine has melted.

A clean strip of white pine forms a good stirrer. As soon as the gelatine has been well incorporated by stirring, the solution must be filtered through a plug of wetted absorbent cotton pressed not too tightly in the neck of one of the glass funnels, which may be placed into a twelve-ounce wide-mouth

bottle. There being only one grain of gelatine to the ounce of water, there will be no difficulty experienced in the filtering operation.

SALTING THE PAPER

Take the glass plate, lay it upon a sheet of blotting paper, mark off several pieces and cut to 11 x 14; clip one of these pieces upon the plate of each corner, then place one of the sheets of thin paper upon the blotter, back down; secure this at one end by two clips, leaving one end free. Now pour some of the gelatine salting mixture into a tea-cup standing in a saucer; this will catch any spillings that may occur; dip one of the camel's hair brushes into the liquid. Then, holding the plate and paper with one hand, pass the brush over the surface from the clipped to the free end with one clean stroke. Repeat the operation until the sheet of paper has become evenly coated, the two clips that held the paper being released and used to grip the coated sheet at one end, which is then suspended to dry by means of a stretched copper wire. A number of sheets may be treated in the same way and dried, because they will keep in good condition for a long time before sensitizing. As soon as the sheets have become dried, they must be rolled tightly upon a smooth card-board roller. One of the ordinary mailing tubes will answer the purpose, after wrapping a sheet of smooth paper upon it. The object of this is to smooth out any inequalities that may occur. Then, when sensitizing takes place, the sheets must be re-rolled in the opposite way so as to flatten the sheets. The whole operation is a very simple one. It can be performed in less time than it takes to describe it. To sensitize the paper the following solution must be made up:

SENSITIZING SOLUTION

Distilled water	3 fluid ounces
Nitrate of silver	150 grains
Nitrate of ammonium	100 grains
Carbonate of soda	10 grains

Dissolve the nitrate of silver first, add the ammonium salt next, shake the mixture well; add the carbonate last, dissolved in two drachms of distilled water; shake the mixture well and filter through absorbent cotton.

SENSITIZING THE PAPER

Attach one of the salted sheets back down upon a clean sheet of blotting paper, upon the glass plate, secured in the same manner as for the salting process. Then under the light of a plain gas jet or an eight-candle-power incandescent light proceed to sensitize by pouring the silver solution into a tea-cup as for salting, employing another two-inch camel's hair brush, and spreading the silver solution carefully over the surface in exactly the same way as in the operation of salting, passing the brush evenly and with a moderate quantity of the silver solution, taking care that no streaks are formed. The coated sheet may now be released as before, clipped and dried away from active light.

Sensitizing may be carried out in the evening, and the drying performed in an ordinary room, darkened. The drying takes place in the course of one hour.



PORTRAIT

John A. Schreurs



A SCHOOL GIRL Mrs. Wilma B. McDewitt



BETTY

Mrs. Wilma B. McDewitt



JULIA BELLE

Miss Belle M. Whitson

Highly Commended in THE PHOTOGRAPHIC TIMES Print Competition

When the sheet of paper is lifted it should be held so that if any silver solution drips from it, the dripping should be received in a small graduate and eventually returned to the stock bottle. When the sheets are dry they may be printed from any good negative, and finished by toning to any color—from a rich brown to a purple-brown.

The printing must be carried to a good depth, which, with quick toning, will give rich browns, while by longer toning purple-browns will result.

WASHING THE PRINTS

Owing to the paper being thin, the washing of the prints is best performed by taking a clean tray and laying each print back down, holding the print by the upper end, then pouring clean cold water upon the surface, allowing this to soak for a short time, then repeating the operation until no milkiess occurs; then carefully lifting the sheet by two corners and laying it down in another tray of clean water. As soon as this is done, toning may be proceeded with.

TONING AND FIXING THE PRINT

Make up the following toning solution, which should be allowed to stand for twenty-four hours before use:

GOLD TONING BATH

	Water	34 fluid ounces
A	Acetate of soda	60 grains
	Common salt	30 grains
	Bicarbonate of soda	15 grains
	Chloride of gold	4 grains

Tungstate of Sodium and Gold

	Water	20 fluid ounces
B	Sodium Tungstate	40 grains
	Chloride of gold	2 grains

This toning bath may be made up and used as soon as mixed. It gives very fine brown tones, may be used over and over again by adding a small quantity of chloride of gold solution each time it is used. The A bath may also be used many times over by the addition of a small quantity of gold chloride, but this bath is capable of giving very rich purple tones. It must, however, stand a full day before use.

TONING THE PRINTS

As soon as the prints have been washed they may be placed into the gold solution, *toning each one separately*, because they are apt to be torn in the handling if more than one is manipulated at a time. Toning takes place rapidly, about thirty seconds or one minute at the most. The faintest change in color is all that is required. As soon as toned, place them into cold water, and fix them in a plain solution of hyposulphite of soda, three ounces to twenty of water. Fixing will be complete in about five minutes, because the solution

penetrates these thin papers readily. Both India paper and Japanese vellum may be treated and the various operations conducted at the same time.

The washing of these prints may be best carried out by passing them from one tray of clear water to another. Should running water be used, the prints will slide over the top of the tray, while if held within the tray by placing a glass plate on top, so that the water may run out at one corner, the prints will become folded, which, owing to the thinness of the paper, will become cracked or otherwise ruptured so as to injure the surface. As soon as they have been well washed they must be carefully blotted between sheets of clean blotting paper, and then laid upon another clean blotter to dry. Another way to produce this class of print is to employ a solution made up of a salt of iron and silver. In this case no separate sensitizing operation is necessary. One operation covers the preliminary part of the process. The prints made by this means may be toned or not, the fixing process giving a beautiful brown image, and if the image is only half-printed, it may be developed in a mixture of potassium oxalate and Rochelle salts.

The following preparation is easily made, costs but little, and will yield excellent prints with certainty.

FORMULA No. 2

FERRO-ARGENTUM SENSITIZER

A	Hot distilled water	2 fluid ounces
	Nitrate of silver	$\frac{1}{2}$ ounce avoird.
B	Hot distilled water	2 fluid ounces
	Citric acid (crystal)	$\frac{1}{2}$ ounce avoird.
C	Cold distilled water	4 fluid ounces
	Citrate of iron and ammonia (green scales)	1 ounce avoird.

When the salts are dissolved, add B to A. Shake this well. Then add this solution to C. Shake the mixture well, filter through a plug of absorbent cotton. When the mixture is cold it will be ready for use. It may be added here that this mixture if kept in an amber-colored bottle will keep good for six months or longer—of course always keeping it away from active light.

The coating of the paper is carried out in just the same way as for that already described for the salting and sensitizing, only one coating being necessary, and when this is dry, the paper will be ready to print. When printing upon paper coated with this preparation, the printing must not be carried too far—only to a moderate depth—because further development takes place as soon as the paper is washed in water, while it develops still further when placed in the hyposulphite of soda fixing bath.

The above method will give very rich brown prints, while toning them in a gold bath will render the color purple brown. Toning must be carried out before fixing, two changes of water being given them after toning and

before fixing. The gold bath that suits the purpose in this case is the borax bath made simply as follows:

Water	32 fluid ounces
Saturated solution of borax	3 fluid ounces
Chloride of gold	3 grains

This bath may be used as soon as mixed, and may be used repeatedly, simply by the addition of a small quantity of chloride of gold solution (one grain in one ounce of water) just before use, a test being made with red litmus paper, so that it shows a slight alkaline reaction by changing the red to blue. The fixing of these prints is carried out in the same manner as for the salted paper, the washing of them likewise. The brilliancy of the prints upon salted paper may be increased by using the following preparation in place of the No. 1 gelatine formula:

FORMULA No. 3

Albumen of one egg.	
Distilled water	10 fluid ounces
Chloride of ammonium	40 grains
Chloride of sodium	60 grains

The albumen must be well beaten with a silver-plated fork in a basin with four ounces of the above water, then placed in a bottle with the other ingredients and shaken well several times during twelve hours. At the end of that period it must be filtered through a plug of wet cheese cloth, or well strained through wet cheese cloth twice. The resulting solution may be used in place of the No. 1 formula.

The brushes used for this work must be washed well after use, while still wet, and each brush marked for its respective purpose.

In the first part of the process, when the prints are washed upon the bottom of the tray, some water must be poured into the tray to cause the print to float, so that it may be easily handled; also to prevent the print clinging to the tray, which might cause it to become torn.

The object of washing a print in this manner is to give support to the paper because of its extreme thinness. Considerable care must be exercised in all the operations, and when the print is mounted it must be done by just touching the two upper corners with a very thin paste, or by a touch of mucilage.



PORTRAITURE WITH A HAND CAMERA

BY F. C. LAMBERT, M.A., F.R.P.S.

With Six Illustrations by the Author

MANY—perhaps the majority of people who use a hand camera have somewhere at the back of their minds, some sort of notion that really serious portraiture, or, indeed for matter of that, any serious photography at all is out of the question with a hand camera. The old notion that the hand camera is only a toy for “grown-ups” still lingers unexpressed.

It goes almost without saying that for *certain* work a professional studio and all its paraphernalia of stand cameras, painted background, etc., are best. A certain section of the public still think that a photographic portrait must contain a certain amount of the conventional element. Although the pillar and curtain of half a century ago have gone with the head rest they were designed to hide; yet to not a few of those who *pay* to have their photographs done “properly” (*i. e.*, professionally), they cling to the waterfall, the rustic bridge, the ruined castle, and the baronial hall backgrounds.

On the other hand “the voice of the prophet hath shaken the land,” in other words, the omnipresent amateur with his inseparable companion, *i. e.*, a hand camera, is beginning—nay—has gone beyond the beginning stage and has assuredly taught the younger half of the population that these conventional methods and accessories are untrue and out of date; that above all things *naturalness* is the one essential in portraiture. Parents want portraits of their children showing them as they see them every day and not “dressed up fine for Sundays.” Often they prefer some snapshot result by an amateur friend—although it is a very, *very* poor technical result to a studio, stiff arrangement in faultless technique.

I am personally convinced that the younger generation of parents will demand a style of family portrait vastly different to that which satisfied their own parents a generation ago.

The amateur has taught the lesson of the possibility of more homelike surroundings, less convention as to pose, expression, lighting, etc.

Now what is the upcast of all this change? Just simply this: The wide-awake professional photographer will not be silly enough to “kick against the pricks,” but will extend his outlook so as to take advantage of the trend of taste. “What can’t be cured, must be cooked and eaten,” says the pork merchant. “If the people want ‘homey’ pictures, we must supply them,” says the sensible professional man. “For if I don’t they will go to some one else who will give them what they want.”

In a word the astute professional instead of blaming the amateur for making “bad business,” will take the hint and aim at beating his new rival—using the same tools—or the hand camera. If I were tempted to become a profes-

sional photographer, I would certainly include in my kit a hand camera—preferably of the reflex type, with a rapid anastigmat lens—and, moreover, would lay myself out, whenever time and opportunity permitted, to experiment and practice with it, in home portraiture, indoor, outdoor, and at the door. Possibly some professional reader may sniff at the idea of a mere amateur offering advice to a professional. Sometimes the onlooker sees points that the players miss. It may be so here!

May I offer a hint or two to my brother and sister amateurs who carry a hand camera and take an interest in portraiture and figure work generally? To many such the idea clings that something in the way of a studio is needed. Others say I am a town-dweller and have no garden or other opportunity of outdoor work, etc. Well, anyway, there is likely to be at least *one* door to your house. There you have a place where a fair trial can be made to start with. Example is better than precept sometimes. In this connection may I refer to half a dozen simple little experiments which I venture to use, solely with the notion of illustrating an idea?

Here in examples 1 to 6 we have the street door, portico, steps, etc., of a very ordinary London house, of which there are hundreds of thousands of similar things in every city and town. Now at the door many little things happen in the lives of young and old. We go out, brisk, fresh and spry in the morning. We return somewhat slowly and tired in the evening. A friend walks homewards. We say good day at the door, etc.

In this half dozen unrehearsed incidents we have glints from everyday life of this little girl; just ordinary things which happen nearly every day, and the result is the parents say, "That is Patty to the very life." One can almost hear her chattering, *e. g.*:

1. "I can hear the postman coming."
2. "Does it still rain?" (She is holding out her right hand to feel the raindrops, but this hand, unfortunately, is just out of sight.)
3. "The door has blown to. Shall I knock or ring?"
4. "I can just reach the knocker."
5. "Somebody is coming. I needn't ring."
6. "Goodbye."

It is a threadbare, and yet true, commonplace to say that most people change their thoughts and expressions when they change their clothes. Most people who visit a professional studio put on their best "go-to-meeting" or "party" clothes. A Sunday atmosphere clings. One ought to look and feel solemn. The occasion is felt to be serious. Consequently the expression is special and generally very undesirable. Then again our thoughts and expressions are influenced by our surroundings. The studio is strange, or, at any rate, not so familiar as home. So this element again is unfavorable to the desideratum—viz.: complete homely naturalness.

When one comes to think of it, the ordinary professional photographer's



studio is an out-of-date relic of the past. In the days of wet plates and slow, dry plates, quick exposures were not possible in ordinary rooms. True, they are not practical today in some rooms. But in most modern houses one generally can find a fairly well-lighted room, porch, balcony, etc., where hand camera exposures are practical.

To quote the details of the accompanying prints:

Time of year, end of September; 9 a. m.; cloudy, and rather dull; Imperial N. F. plates; H. & D. 200; $3\frac{1}{2} \times 2\frac{1}{2}$ inches; anastigmat, f. 6.5; exposure, $\frac{1}{8}$ sec. The camera (N. & G. Sybil) is not a reflex, so the focusing was done by guessing distances and a sliding scale. I find that $\frac{1}{8}$ sec. is about as long as I can hold a camera still enough for work of this kind. It will be seen (I hope) that the negatives were very fully exposed. The six plates were all developed together in one dish for 5-6 minutes in 4 ozs. of normal Diamidophenol which had previously been used a few minutes before for developing some bromide prints—another sign that these plates had been fully exposed.

These prints may also serve to convey the hint that with the same background, etc., one can get more than one study, or use more than one idea. Thus "at the door" might afford us quite a score of negatives which would be about different, both as regards pose and expression; and not one of them need be that one undesirable story, viz., "the camera-conscious expression."

In this half dozen examples this little girl, of course, knew she was being photographed, but in no case did she know the exact moment. Nor do I think that there is very much suggestion of "camera consciousness." This is, perhaps, largely due to a lively conversation being kept up between photographer and model on the question and answer principle, which did not leave long intervals for thinking about "being photographed."

One of our difficulties is with those grown-up people who made their acquaintance with photography or sitters half a century or so ago, when the slowness of plates called (or such a time exposure as to require the warning word, "quite still, please"). Naturally the old ideas are deepest rooted and so although we may explain that they need not worry about holding quite still, yet the notion is present—subconsciously perhaps—and tends to give a dentist's chair suggestion. With such sitters a little guile, is, I hope, pardonable. One dodge is to say, "Quite still, please; one—two—three, thank you." The two last words generally induce an expression of gratification at having done something creditably, with a general relaxing of both body and face muscles. That is the moment for *really* making the exposure.

A word of warning to the worker who is just beginning portraiture. Starting with the notion that naturalness is highly desirable it is easy to make the false deduction that *any* pose or expression that is natural will give a pleasing portrait. It is not so at all. A person may be slouching, naturally enough, in a chair, but anything of a slouchy nature is fatal to good portraiture. Again, while all our sitters' expressions are in a limited sense "natural," yet for the most part there are only a few of the many possible natural expressions which are individual and characteristic. To sneeze, cough and yawn are all "natural" enough. Yet who but a crank would seize such moments for portraiture?

Finally. Hand camera folk on portraiture bent, "beware" of overlooking the background! Look out for trouble with a patterny wall paper. It may not strike the *eye* as very marked; but how about the camera rendering of the colors? Those tall yellows on the delicate blue ground will likely be jumpy with an ordinary plate. On the landing, half way up the stairs, we often get delightful lighting effects, but beware of the stair background chopping the figure into sandwiches. The drawing-room mirror, with its reflection image, is tempting, but it is also very stale, and is seldom a success. It is so like hearing the same story a second time. The figure with lace curtain window background, has run through the photographic world like a veritable epidemic, but thanks be, there are welcome signs of subsidence of the malady.

LENTEN-TIME PHOTOGRAPHY

How the Season of Restriction Was Helped by the Camera

BY FELIX J. KOCH.

With Three Illustrations

CONVERSATION had drifted, as conversation will, in the best regulated company always, first to social events of the present; then to the forthcoming events which had cast their shadows decidedly before, and then, eventually to the Lenten season, which would put period to dances and balls, and, in a degree, even calling.

Some of them said they found the season one that did grow a trifle dull,—they didn't quite like to say stupid,—when the dapper little woman who somehow always seemed to do the right thing at the right moment interjected:

"Do you know, Hubby and I enjoy the Lenten evenings almost more than many of those of the rest of the year? It's usually cold and bad weather; sloppy streets, wet sidewalks, and so on,—the time of the year when an evening round the living-room lamp, with the odor of a good cigar in his mouth and a box of chocolates at hand for me, is decidedly pleasant.

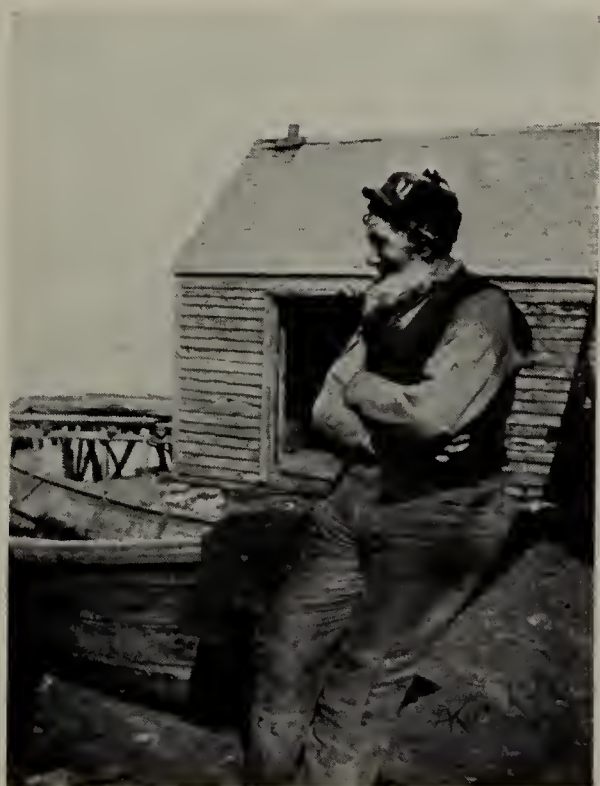
"Then we get out the pictures we've taken through the summer and look them over. We bring out our diary and read in turn, one of us looking over the pictures while the other reads the section pertaining. Then, as I grow tired, I take a turn at these pictures while husband reads on, for a space.

"What a lot of delightful incidents they bring up! What recollections, peoples and places, odd little happenings! What merry laughs we do have.

"But, best of all, each Lenten season we take a Sunday afternoon off for a typical Lenten camera-hunting. In other words go in pursuit of fish.

"Of course when we lived in an inland town this was a bit more difficult. But then we called up the local grocer—discovered where he got his supply of local fish, and arranged to drive there. It was always interesting, taking the river road and keeping our eye out for pictures.

"Sometimes it was a fisherman dropping his seines. Another time it was a man stretching his nets on the bank to dry. Again it was some boys with nets, following the creek along in pursuit of minnows—'minnies' they called them—to be sold as bait. Other times we found where men dug large



CONSIDERING THE CATCH



MENDING THE NETS



SHIP TO SHORE

turtles or small turtles for the soup that resulted. But always the outing led us in the wake of pictures.

"When we moved to the seaboard it wasn't difficult at all, of course, to locate *bona fide* fisher settlements. Often we'd go down by the first train thence in the morning and return by the last at night. We'd take a snack of lunch along, in case of need, but most often there was a chance of a good fish dinner in some cottage, and there, then, we feasted, indeed.

"After that we went out and took pictures.

"Yes, it was for the pleasure, the fun, but even fun must be paid for, you know, and so we made a point of taking pictures in a way that they would eventually cover our expenses. We'd get fishermen, fish wives into the scenes—life, when in native costume, always helps, anyhow. Then we'd get their names and addresses, and by and by we'd send them a copy at a nickel profit to us above postage and cost. Of course they'd accept it—though we enclose stamps to return if not wanted and usually ordered more.

"Then we knew that there were concerns given over to the sketching of ads, who got out calendars, post-cards and so on, who could always use a good picture. When we saw something appealed to this use, we took it and often it paid the expense of the entire day's outing. But then, that was just the underlying side of the story, the framework, the 'paying the way,' so to speak.

"Beyond that was the charm of it. Studies in marines, studies in beaches with fisher cabins, studies in fishermen, studies in fish! Only a real true born photographer can know the pleasures it gave. All the joys of hunting, without the cruelty of killing and the messy work of skinning was ours. All the delights of the great outdoors, plus the tang of the sea.

"It was so appropriate, too—fisher life in the Lenten season. What's more, usually we'd be given a neat mess of fish in exchange for the pledge of some pictures—and with the fish on the table, the pictures close by, and the dozen and one incidents to look back to and recount, we've come to look forward, year upon year, to our Lenten camera outings!"

WE MUST PROTECT THE RECORD PHOTOGRAPHER

BY L. C. BISHOP.

IN no other work is the drawback of uncertainty so unavoidable as in photography. How many things can happen, through accident, to prevent the desired result of an expert worker. He can never say, definitely, that he has a good negative until the plate has been developed. The lucky side is all for the novice who might by accident capture all the elements that make a wonderful success. I know of nothing wherein the good luck of a mere novice is so effective in cheapening the higher trained man as it is in photography. The novice may get a valuable negative where a great professional has failed through some accident with more complicated apparatus or the fault of a careless assistant. A failure on the part of a man of reputation is *costly*—he might go on making ordinarily fine negatives by the hundreds for a long time, but if in one important undertaking he fails it will not be forgotten by anyone who knows of it.

The novice strikes real luck about as seldom as the professional makes a failure, but failures to the novice mean no serious matter—no one need know about it—he doesn't bother to show any but his lucky shots.

Here is an experience which took place in Brownsville, a small town just about large enough for one photographer who would do about all the photographic kinds of work.

A very important negative was to be made, one morning, and the call came unexpected. The photographer had made some flashlights the evening before and his view-holders he had just emptied into an original plate box, to be laid aside until he had time to develop them with others he intended making in the afternoon. The box was marked "exposed plates" and set up on the shelf so the writing could be seen at a glance, in white light. The photographer called his assistant to load the holders while he changed lenses and shutters on the outfit to be used that day. The assistant turned on the ruby light, shut the door and expected to find enough plates handy, but the case was empty, so he glanced around for a partly used box. He saw the end of a box, pulled it down, shook it and went right ahead with the loading. Everything was done in haste, because they were limited for time. The photographer felt his usual confidence as he left and went to meet his group—a large convention group outdoors. In getting ready and arranging this large group there was considerable work in getting that which was in front of the camera. Behind the camera and the photographer there was the usual large group *constantly growing*. A mass of boys, loafers, maids and children. One of the boys had a full sized Brownie. He was seeing the group in his finder and was moving closer. Click went the rotary shutter. It was the last exposure on his spool, and the drug clerk did the rest.

The photographer on his return to the studio instructed the assistant to develop the plates and hurry a proof which must be at the convention hall at a certain time, when some one there was to assist in getting orders and making collections. There was another call to make that morning, a reunion group in the country about fifteen miles by wagon road. The photographer had a livery man pick him up just as soon as he could get around with his tripod and smaller camera (8 x 10). The young assistant poured on the developer, after helping off, but the plate flashed up a painful evidence of something wrong—the next was like it. What could be done? He turned on the white light and read *exposed*. There was no way now to reach his boss, as he called him. (Poor devil, I'll bet it was warm where he was.) The flashlights had been made in after hours during the assistant's absence and through the rush and unexpected call this danger did not occur to the photographer. The young man decided to go ahead with developing the contents of the box but found the Pyro bottle low and none in stock. He went to the drug store, got the Pyro, and needing sympathy boldly told the clerk what had happened.

Trade was slow in the drug store that morning so the drug clerk began to develop a few rolls of film. He tried the boy's Brownie film in a tray of fresh developer. On five of the sections there was little more than sky, as they had been taken after school hours, a little late for snapshots, but the last one was exceptionally good, sharp in detail, too. It was the convention group and was easily recognized when the drug clerk examined it. Here was a "windfall" sure enough. The clerk called the local paper and sold a 11 x 14 enlargement for \$1.00. While he was at it he made a number of extra enlargements. When the boy came in the clerk said here boy is a chance to make easy money. "Run over to the convention hall and show these to Mr. *Elbert*. "Tell him the photographer spoiled his plates and that we will sell these at \$1.00 each. (I'll make them to you for 60c.) Have him call me up and if he is in doubt have him phone the photographer."

Everything went fine for the clerk and the boy. They sold over one hundred bromides. The local paper gave the boy a great write-up, half a page, followed by a good roast on the photographer *of their city*. The boy's parents were delighted and that evening the proud father entered the drug store with his son Billy. The father soon got visions of a great future for Billy and was looking over catalogues with the clerk. The clerk showed how he could get an 8 x 10 outfit for \$100.00, and if Billy would make the exposures they could work a nice little business together. The father added enough to Billy's first earnings to make the \$100.00.

Later in the same month \$100.00 more was added for extra lenses, lens hoods, filters, focal plain shutter and a flashlight machine. When school was out they also added a horse and buggy, which Billy's father traded a lot for. All that summer he neglected his business to help Billy along. Together they figured out the price of a plate and the cost of a print, not considering rent or any salaries. They decided on \$1.00 for the plate and one print and put a fine



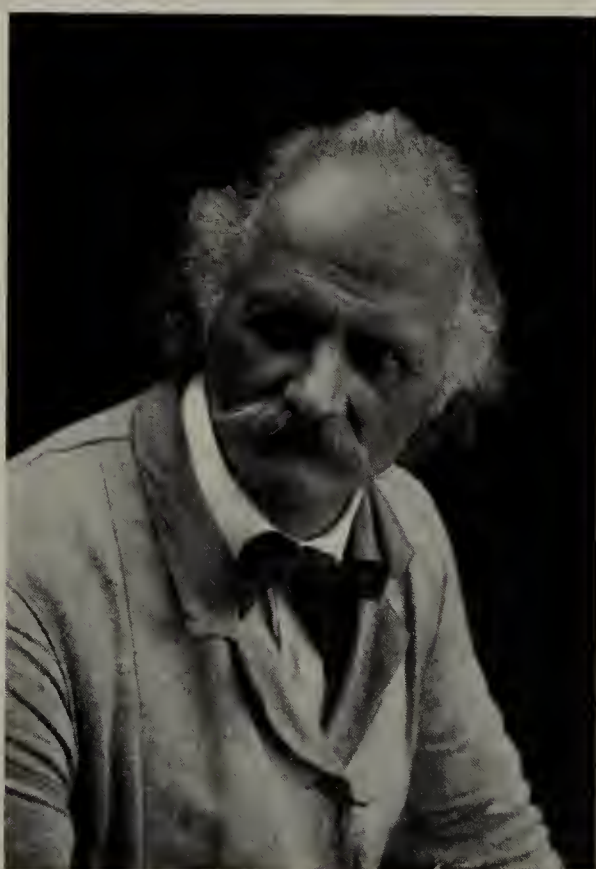
THE PEASANT GIRL Chas. Lindenschmit



PORTRAIT OF A CHILD J. P. Buell



EIGHTY AND EIGHT Chas. Lindenschmit



THE PROFESSOR Chas. Lindenschmit

Highly Commended in THE PHOTOGRAPHIC TIMES Print Competition

big "ad" in the newspaper. The regular photographer made no difference in his charges, which were \$3.50 for first print and plate, additional prints at the dozen rate, additional plates \$2.00 if less than six, more than six \$1.50 each.

All of Billy's family's relatives and family's friends were now involved in forcing a mushroom photographer. There were subscriptions to all the magazines and special letters to the editors; plates and flashlight powder of every kind tried out. Finally Billy's father said we must cut down expenses; why not make our own prints and do away with the clerk. Cash received was *small compared* to cash going out for material alone. Billy had shot many plates and his father guessed he was about professional, so they had the printer get out some fine stationery. On this they wrote the stock houses for prices.

What a great saving on plates alone it was, instead of \$2.40, at the drug store, as low as \$1.10; hypo per pail; why they almost gave it away. Gradually they fell for the advertisers, loading up and rebuilding and replumbing the finishing room. The work room was handy and contained a full stock of all chemicals and ready mixed developers and toners. Billy and his father often worked until wee hours in the morning, getting onto things. Time, money and health were thoughtlessly used like free water. Billy was pretty well worn out and now he was deciding that the view business didn't pay very well and it would be much easier to make portraits. Home portraiture was what his father said was the newest fad. So they went into the market again—a new camera with long bellows, the fastest anastigmat and the regular outfit a stock house man would advise. (Nothing lacking.) Books, books, platinum paper, hand-made mount material, everything advertised.

Billy found the lens hard to keep in focus—had it exchanged several times, but with no better success. Someone told him to stop down, then be under-timed—all in all he considered that his father was mistaken as to there being any money made in home portraiture. The father agreed. Billy thought seriously for a few days. He was so tired of continual failure. He had well stained finger nails and smelled quite like a chemist shop, but his brain was in a whirl. Billy's mother was worried over her son and that night they all decided it would be fine for them to run down to New York City. They did so. Billy and his father went to their stock house and saw the many, many cameras and things. The manager encouraged Billy after listening to his father's long story. He got a special man to spend a half day with them. Such a liberal, fine entertainer. He told Billy and his father to build a skylight onto their home and buy a regular portrait outfit and go at it right. Billy would pull through and would eventually make much use of the home portrait outfit, but needed things of greater certainty in the beginning.

They walked into the web, bought a portrait camera and stand, a big portrait lens and shutter, backgrounds and all of it. They left over \$500 more in New York and came home to build the skylight. When the skylight was in and the home studio furnished they were proudly ready to make sittings. Billy

didn't graduate from high school but he was sure he would make all of the class pictures. He tried four of the boys—his best friends—and got into no end of trouble with his new, cumbersome, unruly outfit. The results were not as good as he could have done with his old view box out by the side of a house (he said to himself). None of his friends ordered. The class went to the older photographer.

At the regular studio business had been quite dull owing to Billy's cut in prices. (No one profited except those who sold apparatus and material.) Billy was somewhat discouraged but felt sure he would do a big business when he mastered his new outfit. He didn't mind losing the class pictures. He considered students hard to please and cheap anyway. Billy continued to work hard, and his father stuck by him. They went at it harder than ever. By now they could develop and print quite well—retouching, too. Some expensive materials had been bought, so they set out to make some "Top Notch Stuff."

They copied the poses of actresses and applied them to the maid, the family dressmaker and the preacher's wife; another friend of the family, too, was a school teacher, grammar school, taught geography. They had her in a long kimona holding a crystal ball. Prints were made of these and a case for exhibition placed in the father's office. Prices \$4.00 to \$18.00 per dozen. The townspeople came to see the exhibit, but Bill's studio was quiet. The father spent hours talking for his son, besides doing the arguing with inquisitive amateurs. Billy's uncle from the West came and ordered two dozen at \$18.00; his father gave away about fifty of his own and paid his son the same rate. These orders were completed on the 3rd of July, so Billy decided to enjoy a day's recreation. Brownsville was celebrating—had a long program of races and contests.

On the morning of the Fourth about the first thing Billy saw was the drug clerk and another beginner. They were taking every contest with a brand new Graflex, with individual shots at the winner. That afternoon one of his classmates was out selling wet postals, 5c each. The drug store window was full of enlargements. The Graflex man was now making postal groups and portraits four for 25c. Had all he could do snapping away and picking out quarters. The drug store was mighty busy selling gum and sodas, but sold a number of Kodaks that day and every day after. Billy's father said never mind my boy they can't make as much as you did your first day and they'll never be able to make as fine work as you do now. Billy found a few more sitters among his closest friends and the poor old photographer was sick most of the summer.

About October 1st the local paper came out with an "ad," half page. A wonderful artist photographer was coming to make portraits of sitters in their homes. A representative would call in advance. (The name of the photographer was one of well-known reputation from a large city). This ended the studios of Billy and the regular photographer as well. However the advertised photographer did not appear personally, but a party operating under his name and financed by a wealthy business man of greedy disposition. They made

prospect sittings of everybody they could get to sit, except the poorest, making no charges for proofs, but when the order was given city prices were demanded in advance. The proofs were generally good but the finished work was bad and very disappointing—a poor imitation of the specimens shown.

Billy's father could now see the folly of all this. In his own business a competitor had gained many of his old clients together with the bitter taste he and his son got of their own medicine. Think of the waste of money after that one lucky shot. Five thousand dollars wouldn't pay Billy's father in return. The old photographer had to give up and the town now has no good photographer at all. The drug store does quite a kodak business—has a number of young fellows working. The windows are not kept as clean as they used to be because the clerks are all fussing around at something else.

Billy's junk is worth about 25 per cent. of purchase price. He is not a graduate of anything, by no means a competent photographer, merely a victim of foolish hard work and waste. Is it not clear to see that our trained professional photographers are constantly being drawn down by those who are selling without regard to overhead expenses. Just because the novice is not making his living by photography, at his beginning, and does not realize the cost basis on which photographs must be figured by the established studio.

The big city photographer whose *name* was used in Brownsville had been crowded, too; crowded by similar impostors in the city and forced to sell to an idle rich man who held a mortgage. The rich man retained him for a while at a salary while he made haste to drain to the last drop all that could come from his once honorable reputation. Manufacturers are still profiting; the public is suffering, but in a mild way compared to the photographer who is cut.

The reader can now see how in price cutting and low standards there is always still another low scheme in cheap stuff to down the one before—no keeping what is got but fighting or dying out while the *price* is still made more attractive by some one who thinks he has it doped out.

The original Brownsville photographer put in seven years of honest apprenticeship before he came; spent \$2,000 on equipment and rebuilding his place for the purpose of making highly sensible and satisfactory photographs. He couldn't earn very much money until he got things going after the first year. If photographers were protected against such as Billy and his father what a saving it would have been to all of them.

Apprenticeship may be slow but it helps the boy who cannot pay his way through a school and is quicker and 100 per cent. better than trying to teach one's self. Billy should have finished high school, then gone to a technical school of photography, then a year or two of apprenticeship would have fitted him out for a successful career as a record photographer. He would open honorably and charge what his work was worth. Knowing what lenses and cameras are needed without having to buy over and over, a competent man to go into any ordinary studio and receive a fair salary, if he was at first in doubt

of a good location. Think of the waste his father would have saved; at least \$2,500.

Record photographers should be protected by law, then the tendency would constantly be towards better work. Art photographers need not overlook this necessity, believing themselves unaffected by the cheap. While art photography is almost entirely different there are a number who believe they can do both—(that cannot be with any degree of increasing success). Record photography and art photography are widely different as to the training and experience needed. No man has time to learn both and make his living, too.

Record photography requires a good business education, many processes in the chemistry of photography and the exactness and fines principles of high-grade photo manufacturing. Because of the greater output the posing must be on a systematic basis and well learned and the mind so trained as to know when to make required exceptions. He should be taught to leave art photography entirely for the artist, but his taste must be cultivated so that the application of the mechanical and artificial will not offend the eye by being out of harmony.

Those who are brave enough to take up art photography as a means for livelihood should be first sure they have an artist's temperament. Take up a similar study course to that of the portrait painter, at the academy or under competent and regular tutoring—leave photography for the last years to save needless blundering, finally take up a year, at least, where photography is taught and considered a fine art. Nothing is gained by needless waste and bad habits are hard to break. It don't pay to blindly experiment when you can buy it for half the cost of wear and tear. We now have schools for both kinds of photographers and I am sure they are becoming more and more thorough. No one can afford to go along feeling and stealing his way. The artist imitator has too hard a path to travel—it's too hard on him. In our schools we have men who will sell you the information that holds you back, things that you cannot work out for 100 times the price.

We have a great army of people who take negatives and sell prints, working at odd hours and selling at low prices just for the experience and a little money to buy more material. Some day it is their hope to have a studio (when they have learned considerably more), but dear fellow you are killing your own chances even if you *are* only one. Save your money and go at it right—you'll save time, health and honor and by the time you do become a finished photographer you can well be proud to tell what you are because your services will be needed.

Since cheap competition some of our good old record photographers have been urged by advisors to go to higher roosts, drawing them into believing they can become art photographers if they attend conventions. Their work has been influenced and higher prices attached, but it is a shame to see how they have actually ruined their substantial way of working. It's hard enough to make an artist out of any kind of a photographer who learned without the art

training first. Just as hard as it is to make a professional musician out of one who has learned to play by ear. Pretenses to teach art in brief lectures will be fruitless because the principles are all mixed in the minds of those of a different original training. Good taste should be encouraged and helped through demonstrations, but to imitate artists in their work, no one can do it, except in poor taste, unless he is an artist and is trained after an artist's beginning.

If we can restore the record photographer to his rightful field he will be a happy man. Back again to P.O.P. and platinum. If we wish to advance art photography we must first protect the record photographer, then he will not be causing the public to become dissatisfied through his cheaper and incorrect imitations. We've got to raise the standard to a more substantial and dignified one. Photography has grown up and it is important that we photographers recognize it, if we deserve the highest respect of the public.

The American public can still be fooled but it can't be fooled long enough to make a fortune and keep it.

A SUMMARY ON LENSES

BY B. SPRINGSTED

With Two Illustrations by the Author

THERE are many lenses on the market for the various purposes of photographic work, ranging from the cheap single lens to the high-priced corrected anastigmat of numerous types—all good in their particular field, and all necessary to the production of best results in that particular field. It is not the purpose of this article to exploit any particular make of lens, but rather to discuss, in a general way, the merits of the various types of lenses and their applicability to certain lines of work as related to the amateur field of photography.

There is no more important part of one's camera equipment, whether he be beginner or advanced worker, than the lens. This fact is seldom realized, and perhaps less frequently appreciated, by the beginner, because he has not gone into the subject sufficiently to become acquainted with the merits of the various types of lenses. His first requirement, after becoming interested in photography, is a camera that will enable him to get results in pictures from the start—and something simple of operation. The matter of price is also a large factor in determining the equipment selected. He is very apt, therefore, to begin with the box type of camera, having a fixed-focus, single lens, because of the reasonable first cost and simplicity of operation. With this instrument, he is informed, he does not have to judge distances, as with one having a scale for focusing; neither is it necessary, as when using a higher grade lens, to see that all objects or things are in the same plane and therefore in sharp focus. The one essential thing is a good light, for this lens will not give satisfactory

results in instantaneous exposures except under the most favorable light conditions. Beyond this, to secure a picture, it is only necessary to point the camera at a given object or thing and release the shutter. Everything in front of the camera, whether near or far, is in the same degree of focus at all times. There is no individual plane of focus. Please note that the statement relative to objects at any distance being in focus at all times is qualified by "the same degree," for it is my experience that one seldom finds this fixed-focus single lens capable of giving sharp definition, such as can be secured with other lenses, at any distance. Here is simplicity in the extreme. So the beginner, armed with this kind of equipment, starts on his photographic career.

From this, as he progresses in the work and becomes familiar with the faults and shortcomings of the universal focus single lens, and desires something better in the way of lens equipment, the beginner will probably graduate into the folding hand-camera type of machine, equipped with a rapid rectilinear lens. Up to this time the beginner has perhaps given very little thought or consideration to the matter of his lens equipment. He has not as yet been impressed with the necessity of having a lens working faster than about one-twenty-fifth second, or one that will enable him to get pictures under unfavorable conditions; neither has he specialized in any particular branch of the work sufficiently to learn the demand for a lens equipment best adapted to that field to the exclusion of all others. Rather, he has been content with a "general purpose" lens of reasonable cost—a lens that would give him fair results under average or favorable conditions, and particularly one the manipulation of which was simple.

The folding hand-camera equipped with a rapid rectilinear lens (usually f.8 or U.S. 4.) is the next step forward in his course of evolution. This equipment enables the operator to secure a speed of one-fiftieth second under ordinary conditions, and under extremely favorable conditions of light, one-one-hundredth second. With this equipment one also has the focusing scale, and may have, with the automatic shutter, the convenience in making automatic properly-timed exposures of 1, 1/2, 1/5, 1/25, 1/50 and 1/100 second. The rapid rectilinear lens, while of necessity not being corrected for optical defects, has a field limited in proportion as these defects exist; although it offers great possibilities for the operator who will study its limitations and keep within them. The rectilinear lens, under certain conditions, is capable of producing results that will compare favorably with those of the higher grade anastigmat.

The average camera worker, after having more or less experience with the rectilinear lens equipment, desires something possessing greater possibilities, and consequently turns to the anastigmat in the same way that he took up the rapid rectilinear after using the fixed-focus single lens. He now finds his horizon extended. In the rapid rectilinear field there is practically only one type of lens, and this having, to a large extent, uniform speed and quality. In the anastigmat field there are several types of lenses, possessing varying speeds and qualities for the various classes of work—such, for instance, as



No. 1. Print from negative made with rapid rectilinear lens (F-8). Observe depth of plane of sharp focus.



No. 2. Print from negative made with Zeiss anastigmat (F-6.3) working at full aperture. Observe also depth of plane of sharp focus which is much shallower than shown in No. 1. Both negatives made at approximately same distance.

portraiture, diffused focus, landscape, speed work, architectural work, wide angle work, etc. For each class of work we find a lens best adapted to that particular field; so it is necessary, unless one is going to specialize to a degree that will justify the use of a lens for each of these classes of work, to strike a "happy medium" in a lens that will come nearest giving the desired results under average conditions and average work. The camera worker, outside of newspaper work, while he may occasionally find use for a lens working reasonably fast, will seldom find it necessary to use an ultra-speed lens; likewise he will find little demand for a lens possessing special qualifications for architectural work, landscape work, wide angle work, etc. Therefore, the lens coming nearest to meeting his requirements for all around purposes is an anastigmat working at a moderate speed and of medium focal length.

It is always well to remember that one should have shutter equipment working in co-operation with his lens, i. e., the shutter should work at the maximum exposure possible with the lens. This will enable one to get the full reserve power out of his lens when occasion requires.

The anastigmat lens differs from the rectilinear in that it is a corrected lens, that is, corrected as to optical errors such as astigmatism, spherical aberration, curvature of field, distortion, etc. These defects are always present, more or less, in an uncorrected lens of the rapid rectilinear type. It frequently

happens that the defects are not noticeable or do not stand out with such prominence as to attract attention to the inexperienced eye. But the defects are present, nevertheless, and are liable to cause trouble at a time when least expected and prove a source of annoyance. Again, in a lens of the rapid rectilinear type, if the covering power of the lens is not ample for the surface of the plate on which used, the extreme corners are liable to lack definition or sharpness.

Flatness of field: The anastigmat, being a corrected lens, has an absolutely flat field, working at full aperture, over the entire surface of the plate, whereas the rectilinear lens, only partially corrected, has a flat field only in the center.

Probably the most common fault found in uncorrected lenses is astigmatism. Astigmatism means the inability of a lens to reproduce both horizontal and vertical lines distinctly when such lines occur near the margin of the plate, or are formed by the light rays passing through the lens obliquely. This defect therefore necessarily lessens the usefulness of an objective in work where straight lines predominate, such as architecture, owing to the lack of definition in the marginal portions. The only remedy for this lies in stopping the lens down, but this of course retards its working power.

It is not possible to deal at length with the merits of all anastigmat lenses in the limits of an article of this kind. Hence we will confine ourselves to the two types best suited to the needs of the average camera worker, viz.: the f 6.3 and the f 4.5. The f 6.3 for all around work is the better lens of the two because of its covering power and greater depth of field. However, where extreme speed is desired, the f 4.5 should be selected. An eight-cell convertible anastigmat working at f 6.3 is the favorite of a professional photographic friend of mine, who does considerable speed work, as against the entire field of anastigmat lenses. He favors this lens largely on account of its latitude in regard to depth of field, while at the same time he avers its speed is ample.

In line with fundamental optical principles, the larger the aperture and speedier the lens, owing to the volume of light admitted to the sensitized surface of the plate, the more the need of precision in focusing on a given object. It is not possible to secure extreme speed and depth of field at the same time. If depth of field is desired, it can be secured only at the sacrifice of speed, and, conversely, if speed is the quality sought, one cannot expect to have everything recorded by the lens sharp and distinct.

The larger the aperture of the lens of course the shorter the depth of focus, e. g., an f 4.5, five-inch equivalent focus, at fifteen feet distance, will have a depth of focus say of 20 inches forward and slightly more backward, while an f 6.3 of the same equivalent focus will have a depth of focus of 26 inches forward and 38 inches backward; an f-8 will have 32 inches forward and 51 inches backward, at the same distance, etc.

The shorter the focal length of a lens (the distance between the diaphragm

and ground-glass when lens is focused on an object), the greater the so-called depth of focus or depth of field.

"Depth of focus" must of necessity be a relative term, for there can be no such thing as two objects in different planes being absolutely in focus. However, sufficient sharpness may be secured over certain distances, front and rear, so it may be said the image is practically in focus.

Lenses, even within the same type and make, will often times be found to possess varying degrees of perfection in one way or another, the same as other things. I have a Bausch & Lomb rapid rectilinear lens, supposed to work at about $f-8$, that I think is quite the equal in speed and other respects to the average anastigmat working at $f\ 6.3$ or under and of similar covering power. In fact I have tried this lens out several times, under identical conditions, with $f\ 6.3$ anastigmats and have secured equal results in some cases and better results in others. This lens was selected by me after giving a number of similar lenses critical try-outs to determine superiority.

Just a brief paragraph here relative to the practical operation of the anastigmat as compared with the rectilinear lens. I remember very well some cautionary advice once given me, before I had gained experience in the use of the anastigmat, by a friend who was trying to dispose of a second-hand camera to me. After enlarging upon what he considered the "mysteries" of the anastigmat, he concluded with an argument of the differences between the two types of lenses—stated that there was no similarity at all and that I would meet failure in the early use of the anastigmat by relying too much on my experience with the rectilinear. He was either insincere or ignorant of his subject. I learned later on what little basis of fact his argument was founded. Any one who can get results with a rectilinear can do likewise with an anastigmat. The two things to be borne in mind are: (1) the anastigmat is a faster working objective; and (2) it requires more care in focusing as to distance, because of its shorter "depth of field." With this in mind, the same judgment that will render good results with a rectilinear will do likewise with the anastigmat.

In conclusion, it is proper to point out that one should study the possibilities as well as the shortcomings of his lens equipment, whatever type of lens it be. Only in this way can best results be secured; and unless one is competent in its use, best results cannot be expected from any objective. All lenses have their limitations, and no lens is capable of doing the impossible. The competent use of an uncorrected lens will prove more satisfactory than the incompetent use of a corrected lens. And do not lose sight of the fact that it is not all either in the camera or the lens employed: the principal thing, after all is said, is the "man behind." One operator will take a crude box affair with a pin-hole for an eye, and make a prize-winning picture; while another will go forth with the most modern of camera equipment, including a highly-corrected anastigmat lens, and yet utterly fail to secure a negative that will render a satisfactory print. So, in the last analysis, it is our per-

sonality or inner selves that determines the degree of success we reach in this as in every other line of endeavor. This personality of ours may be difficult of a proper explanation in cold type, but it is not so in a comparison of results.

PHOTOGRAPHING SMALL OBJECTS WITH A COMMON CAMERA

BY C. L. CHAMBERLIN

OCCASIONALLY the amateur finds it desirable to photograph a small object of some kind, perhaps to copy another photo or to take some similar sort of exposure with a camera intended for outdoor scenes. Whether it be a camera with fixed focus or adjustable, the amateur finds himself afloat on a strange sea and with little aid available. Most books tell him that he must get a long-extension camera if he wishes to do such work instead of giving him instructions for doing something with the camera he has.

Any one handy with tools and accustomed to doing fine adjusting on small machines will be able to make by hand an extension for the bellows already on his camera. The problem is simply to carry out the front lens farther from the rear and yet protect it from cross lights by enclosing it in a light-proof bellows. Cardboard and some very thin leather or tough paper is all the material that will be needed except some good glue or paste or some other "stick-'em" liquid that will work on leather, paper or wood. The size and shape of the camera will determine the bellows but the idea is simply to extend the former bellows or to make a new one longer than the old so as to carry out the front lens.

Sometimes an additional lens may be attached to add to the strength of the present one. The portrait attachments sold by most dealers at fifty to seventy-five cents enables one to take portraits making the object larger and at close range. With one attached an adjustable lens camera may be focused at two feet eight inches, while one with fixed focus can be made to give a clear image at three feet six inches. While this may not give a perfect view of a coin, postage stamp or similar object, it greatly helps in extending the work of a common camera. A reading glass fastened over the regular lens gives a larger image after being properly focused. Best results are obtained in getting clear definition at short range on small objects by using a small stop and making a longer exposure. Of course these are only temporary expedients, as only a well made, long-focus camera will show really high-class work at short range on small objects. But these suggestions will help out on an occasional view.

Editorial Comment



FOR the amateur there is, perhaps, no more fascinating branch of photography for the winter months than enlarging; by this means little insignificant snapshots can attain the dignity of a picture worthy of a place on the walls of the most esthetic person's home. Added to the artistic value of making one's own enlargements, there is always the personal element in such a picture that will recall sentimental memories of some holiday in the country or some foreign land; of some special friend or group of friends. With the modern enlarging apparatus now available at such little cost, no amateur photographer should be contented with the small contact prints that average negatives yield. Books specially written on the subject, and the many articles regularly appearing in the photographic press, make it a simple matter for the merest tyro to produce good enlargements.

With the approach of winter, photography to some amateurs loses its strong appeal; to them the exposing, developing, and printing of the plate is the beginning and ending of photography.

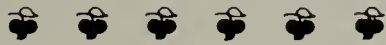
The fact is that the more creative and individual work is that which follows after the ordinary process is overlooked.



PHOTOGRAPHIC illustrations are being used more than ever for educational purposes, and the instructors or students themselves should be encouraged in every way to take such photographs. The actual fact of photographing any object centers the attention on that object more completely than inspecting it, and the mind remains fixed on the object throughout the subsequent operations. When finished, of course, any number of prints can be made. Before photography can be employed for educational purposes, a certain amount of time must be devoted to the study of the subject. Anyone who thinks that the purchase of a camera involves nothing more than to press a button, and get somebody else to do the rest, will be seriously disappointed. Such a method may answer for the holiday or casual snapshotter, but when results are to be used for purposes of instruction and study, the science and art of photography must be correctly understood.



IT is the close attention given to the seemingly small and unimportant details about photography, whether it be exposure, development or printing, that accounts for the pronounced success and reputation some of the photographic experts of the present and bygone days enjoy. It is also true that certain amateurs excel in a particular branch of the work, who have worked out and studied that particular branch to its fullest extent, and the result of their work is as easily distinguishable for its technique as a painting or sculpture by a well-known painter or sculptor. For instance, some time ago in looking over an exhibition of photographs, we remarked upon the general characteristics of several of the pictures and upon further inquiry found they were by the same contributor. The person in question had specialized in the composition of his subjects, and though they were in both figure and landscape the same careful attention was shown in the arrangement and execution of the subject.



OF course it is readily understood that some people are more artistically inclined and see a charming landscape which would be nothing other than the countryside to others of a less artistic point of view. But even the absence of an inborn knowledge of the beautiful in composition, whether in figure or landscape has been overcome by many by using a little judgment in the trimming of prints, by cutting off the non-essentials which in many cases detract from a large number of really good pictures.



THE MOUNTAIN MILL

Frank von Gillmoe



Discoveries

[The readers of THE PHOTOGRAPHIC TIMES are invited to contribute to this Department reports of their Discoveries for which we will allow One Year's Subscription, on publication of the contribution.—THE EDITORS.]

PHOTOGRAPH AND DESCRIPTION OF A HOME-MADE COPYING STAND.

The dimensions: Upright board, 4 feet, base board 2 feet, both are 8 inches wide. The block to which the camera is attached by means of a tripod screw is 3 inches thick by 5 inches square. The object of this board is to center the lens and the thickness would vary according to the size of the bottom shelf which carries the pictures or other object to be photographed. This bottom shelf is 17 inches by 13 inches and the stand is high enough to allow an object occupying the whole of this space to be photographed with ease on a 5x7 plate with a lens of 8¼ inches focus.

The picture is simply laid in position on the shelf, obliquely or straight as may be desired. The camera or the shelf is then moved up or down till the picture appears of the desired size, after which the rack and pinion on the camera is used to procure a sharp image.

The advantages I claim for this apparatus are: Ease and quickness of manipulation

and focusing, picture can be laid in any position; can also be used to photograph small objects that would be almost impossible to photograph with the ordinary apparatus; it occupies very little space, can be taken apart when not in use, and put away; whole apparatus can be moved around as easily as a chair; gives a much better light; can be easily moved to the light.



By placing a glass in the lower shelf instead of a board it can be used as a retouching desk, as one of the illustrations shows, also as a stand for natural size photography of grain, flowers, minerals, etc., allowing the background, which is placed beneath the glass, to be changed as often as desired during exposure, securing a neutral tint or any other tint desired. You are no doubt familiar with the process. In the same manner it could probably be used in connection with the microscope.

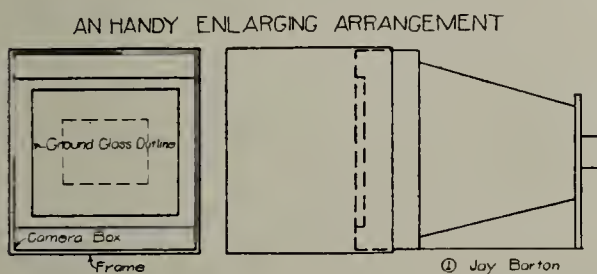
ANDREW C. GAULT.

A HANDY ENLARGING ARRANGEMENT.

How often the amateur who does not own an enlarging apparatus wishes a few large pictures from a favorite negative. The simple apparatus here described should enable him to do his work; and it might well be remembered by the advanced worker when he is away from home.

The first thing is to obtain two cleaned glass plates that will slip into the position ordinarily occupied by the plate holder or the film pack. They should project about one-fourth of an inch to facilitate removal. Or if the camera is for roll films remove the back and fit the glass plates inside the camera box. This is the negative carrier, and the negative, whether glass or film, is placed between these two plates to insert into the "enlarging lantern."

Now make a cardboard box, open at both ends, to fit over the back of the camera. This should be of white board so that it will reflect as much light as possible. It may be tapered if it is so desired, and then it will reflect more light—the larger end



should be over the camera. The length of the box may be between ten inches and twenty inches.

Now to operate the enlarger:

For an easel, the wall serves as well as anything. Pin up a sheet of white paper, insert a negative, place the cardboard box, and set the entire apparatus on a table in front of the paper. Attach a forty watt or sixty watt tungsten lamp to an extension cord. Holding the base of the lamp, place it in the box and move it to within an inch or two of the ground glass. A white spot of light will be seen on the paper, its size depending upon the distance of the camera from the wall. Racking the front-board in or out secures the focus. Now by moving the lamp around as the dotted line in the

end view indicates, the entire negative is illuminated. Practice focusing at different enlargements, and then a sheet of bromide paper may replace the white card, and a practice exposure made. If any light leaks out, cover with the focusing cloth, or other material.

Exposure is necessarily longer than in a lantern; but for ordinary negatives and ordinary enlargements, few exposures exceed one minute.

After the exposure, the treatment is as usual.

Is such an apparatus satisfactory? Well, a negative made with a box camera was enlarged *eight* diameters and the enlargement was envied by both amateurs and professionals.

JAY BARTON.

☆ ☆ ☆

POINTED PHOTOGRAPHIC PARAGRAPHS.

For the best negatives and prints expose correctly and develop quickly. It is cheaper in the long run to use small quantities of developer and renew it frequently, than to try to stretch 20 ounces of developer over 2 or 3 dozen prints, staining and ruining paper, time and temper. Too much bromide in the developer will give greenish tones, too little bromide will make foggy looking whites.

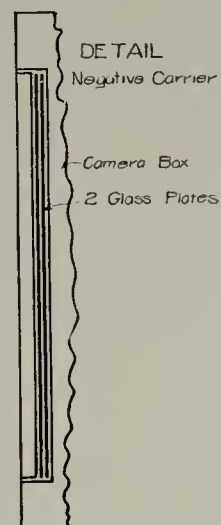
The simpler the subject the greater the amateur's success.

An excellent flashlight fuse can be made from old films cut into strips.

Two drops of ammonia in one ounce of water will remove black lines and markings on prints. Allow prints to dry, then rub marks with above mixture.

Give each step in the making of a picture careful attention and the resultant picture will demand careful attention from others.

I have read several directions lately for breaking bottles evenly. I herewith render my way, though I wouldn't advise beginning with anything valuable, as I broke several very *unevenly* before I acquired the "knack."



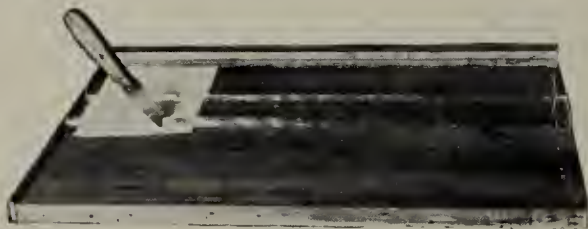
Tie an inch wide piece of wet flannel just above and just below the place where you require it broken. Now wrap a string, saturated with kerosene oil, several times around the bottle between the flannel, light the string and, as soon as it burns away, tap sharply with a file or some instrument no wider than the burned string. If struck with a hammer, or any instrument wider than the hot strip of glass, it will break unevenly. Try on several worthless bottles first. I broke three one-quart whiskey bottles, about an inch below the neck, using the necks for funnels and the other part of the bottles to mix chemicals in.

C. B. PARKS.

☆ ☆ ☆

A SIMPLE TRIMMING BOARD.

Being far removed from a supply dealer I worked out a trimming board like the enclosed reproduction.



An oak board 12" by 20" with a strip on end and side to hold the paper for guiding. Two rows of holes at each end about an inch apart. A strip of ground-edge plate-glass 2" wide by 18" long serves as a cutting guide. The guide is held in place with a nail at each end. A sharp pointed fruit or pocketknife will answer as a cutter. Pressure on the plate-glass strip will keep print from moving. Have used this arrangement for some time and find it very handy.

FRED E. WOOD.

☆ ☆ ☆

ON MEASURING HYPO.

Many amateur photographers think that weighing out hypo crystals on the ordinary photographic balance of capacity 4 oz. a very disagreeable process, both in length of time, and in damage to the scale-pan of the

balance from the deliquescent crystals. The solution of the problem is to measure out the crystals by bulk in a graduate, 1 oz. fluid equals 1 oz. Troy.

P. S. HELMICK.

☆ ☆ ☆

In mixing solutions, I have found that the use of a large, thick glass tube is preferable to a stirring rod. The tube is placed in a graduate with the water and substance to be dissolved, and blown into. The bubbling rapidly causes solution. If a cake is formed at the bottom of the graduate, it can be broken by the tube, as it should be thick enough for this purpose.

There is probably a small amount of free oxygen in the exhalation, but I have not found that it affects the solutions in any way.

RALPH NEWMAN.

☆ ☆ ☆

HOME-MADE PLATE TANK.

A plate tank is very easy to make. I will describe one I made for 4 x 5 plates, but any size can be made on the same principle. Two sides are formed by pieces of wood 1½" x 5½" x ½", to which are nailed pieces of corrugated tin or zinc serving as grooves for the plates. This is wide enough for four grooves, which will hold eight plates when placed back to back. The other two side pieces are cut so as to be about ⅛" larger than the plate, allowing for extending over the other pieces. If you are not able to procure the zinc cut grooves in the two pieces of wood, cut grooved pieces first, fit a plate between the two and you have the size for the other two pieces. Cut the bottom the required size and paint all the edges that are to be put together with black asphaltum varnish. If the joining is done carefully the box will not leak. Place a small strip in the bottom to keep plates from resting on the bottom. Give the inside of box two or three coats of the varnish. Line the top edge of the box and the lid with soft rubber and clamp the two together when in use and it will not leak when the tank is unused.

J. J. HARMAN.



[Officials and other members of Camera Clubs are cordially invited to contribute to this department items of interest concerning their clubs.—THE EDITORS.]

ILLINOIS CAMERA CLUB, CHICAGO, ILL.

An organization of amateur workers for the mutual advantage derived from association—and for the advancement of art in amateur photography.

In its endeavor to furnish every possible incentive to its members and also to provide for them every facility for work, the Illinois Camera Club has affiliated itself with the Sportsmen's Club of America, in which members of the camera club are required to maintain membership. They therefore enjoy all privileges of a high grade athletic club as well as a most complete equipment for photographic work, and it is expected that when the installation which is now in progress is finished it will leave nothing to be desired by the most advanced worker. The work on our portrait studio which has about reached completion, provides for the club an operating room which is second to none in the city, and which will be a continued source of great satisfaction to those of the members who are interested in studio work.

The work on the rooms for developing, printing, enlarging and lantern slide work will be rushed to completion and the work-rooms for mounting, retouching, etc., will soon be in order.

The advantages and facilities enjoyed by members of the Illinois Camera Club are of inestimable value to the amateur photographic worker of Chicago and vicinity. Lack of the necessary space or of the expensive equipment required make it impossible for the average amateur to pursue his hobby beyond the elementary stage. And for those who are so fortunate as to be provided with the necessary equipment, the association with a large number of co-workers is of untold value.

On Wednesday evening of each week the club gives an entertainment, lecture or demonstration on some subject of interest to the members. These are given in the Auditorium of the Sportsmen's Club of America, and anyone interested is cordially invited to attend these meetings.

It is the intention to give during the coming year, one each month, a series of lectures on photographic operations and processes. These will follow in logical order and will constitute a liberal course in photographic instructions.

There will also be illustrated travelogues, lantern slide exhibitions and other entertainments of interest to all and particularly so to the large number of amateur photographers of Chicago.

The program for January was as follows:

January 6—Business meeting.

January 13—Illustrated travelogue—Glacier National Park and the Canadian North West. A large number of beautiful slides prepared by our Mr. W. A. Rowley from his own negatives.

January 20—Lecture by Mr. F. M. Tuckerman—Exposure. This subject was ably handled by Mr. Tuckerman and the talk was very instructive.

January 27—Annual lantern slide exhibition, of work by members of the club.

☆ ☆ ☆

ORANGE (N. J.) CAMERA CLUB.

It is doubtful if any other photographer can produce a finer collection of "oil" prints than were shown publicly December 18th at the Orange Camera Club rooms by Everett Kilburn Taylor of South Orange. Mr. Taylor, besides his artistic equipment, has a knowledge of the chemistry and physi-

cal qualities of the pigments entering into the work that enables him to produce beautiful results, and to this are added his experience in handling lenses and judging lights, together with opportunities of travel not granted the average camera enthusiast.

In the collection were prints familiar to the public through frequent reproduction and exhibition. These include what some regard as his masterpiece, "The Castle of Chillon on Lake Geneva." This has been cited by many experts as being "almost faultless."

Other pictures were his visions of former splendor made in Pompeii, one with Vesuvius seen in eruption through an ancient archway. Still another, made in that vicinity, is just a detail of an old Tuscan farmhouse. Of a different character is his Pompeian Villa, a decoration.

In Holland, Mr. Taylor used his lense again with good effect in catching a typical windmill scene at Haarlam.

From Europe the artist takes his visitors back to the Maine woods, where he managed to catch some splendid views. One of these in dark sienna he called "September." Some snow scenes are excellent as well as seasonal.

While the prints all received their merited attention, none delighted more than the child portraits. Of these, "Manny Boy," a head, seemed to appeal to the casual observer as well as to the trained eye.

☆ ☆ ☆

Now that the holiday season is over and we've all made more money than we expected to, it is time to turn our thoughts to the help of others. That is what Papa Cramer always did as soon as he was through with a hard job—as soon as he had made a bit more money than usual, his heart expanded and he hunted around for someone that he could make happy. How much more fortunate are we, who have no necessity for hunting around!

The Cramer Memorial Committee, headed by such men as Phillips, Core, Harris, Noble, Clark, Strauss, Stein, Steckel, Walinger, Knaffl, Hammer, Topliff, Rinehart and MacDonald—men who, every one of them hard workers, are spending their time and giving their money to make the Memorial not alone a fitting tribute to the dear old man, but to show the world that photographers are first of all men who are sympathetic, strong and generous, as of course you are.

The signing of the pledge for an unknown sum is in a characteristically American spirit. The sporting instinct in the real American is so strong that the idea was taken up immediately and enthusiastically by dozens of men whom one would have been inclined to set down as conservative. If your business on May 20th amounts to only six dollars, you have only to be glad that you are able to contribute six dollars, and if it amounts to sixty or six hundred, there is all the more reason for being thankful that you have been given the opportunity of being really generous.

As the money will be sent to "Pop" Core, he being the Treasurer, and as it has been agreed that the amounts sent in will not be published, the only embarrassing feature has been eliminated. So fill in the adjoining pledge and send it to the Treasurer to-day.

A PLEDGE

E. B. Core, Sec.-Treas. Gustav Cramer
Memorial Fund,
76 Landscape Ave., Yonkers, N. Y.

I agree to send at the close of business on May 20th, 1915, a check equal to the gross amount of the orders received in my establishment during that day, as my contribution to the Gustav Cramer Memorial Fund.

Date.....

Signed.....



Photographic Reviews

THE PHOTOGRAPHIC JOURNAL OF AMERICA.

With the first issue (January Number) of the Fifty-second Volume, *Wilson's Photographic Magazine*, is issued under the above title. For thirty years, since the removal of the publication office from Philadelphia, the magazine had been identified with the founder and publisher, previous to that time the magazine had been called the *Philadelphia Photographer*. In changing the name in 1885 from the *Philadelphia Photographer* to *Wilson's Photographic Magazine*, Mr. Wilson's idea was to create a magazine, not for a locality, as the name might imply, but for the whole photographic public, irrespective of place. Edward L. Wilson was a man thoroughly versed in all matters photographic and was always present at photographic gatherings and conventions. Since Mr. Wilson's death in 1903, the magazine has been carried on by very able editors, until the present day when it is conducted by Mr. Thomas Coke Watkins. It has been improved in several important particulars, not the least of which is the new title which will tend to place it in the front rank of photographic periodicals the world over.

The magazine has never been more aware of the needs and requirements of the photographer than at the present time. On this occasion we wish to assure our esteemed colleague of our best wishes and regards in his endeavors to place before the photographers, both professional and advanced amateur, the very latest in process, appliances and methods. We shall miss *Wilson's*, but we know that our regrets will be more than compensated for by what *The Photographic Journal of America* will be. We wish it all prosperity and success. It certainly deserves both for its enterprise.

UNIT PHOTOGRAPHY, by F. M. Steadman. D. Van Nostrand Co., New York, publishers. Price, \$2.00 net.

To-day is the day of reasoning and efficiency, whether it be in business or in recreation. The majority of photographic endeavor is of course of the latter, but in that the results are now generally carefully scrutinized.

Mr. Steadman in this book endeavors to establish a scientific foundation for the practice of photography. The haphazard method of making exposures under various light conditions without consideration of the actinic property of the light is condoned. Based on measurable elements the process of photography should be considered, and in order that the mind may act with certainty all quantities should be measured and expressed in simple unit terms. This will make possible a more uniform product for the artisan as well as place in the hands of the artistically inclined that freedom of technique which can only be obtained through a perfect knowledge of his tools by much practice.

This idea is covered to a certain extent by different manufacturers of their products, but Mr. Steadman has covered the whole process from exposure to finished print, showing the comparative values according to a unitized system.

On the basis of a new unit, that of the dimension of solid angle or convergence, the author has established a practical unit of Actinicity for the measurement of the intrinsic actinic intensity of surfaces; light sources and expanses and by these means has developed a scientific method of photographic practice in which exposure is deduced from unit measurements by the simplest, easily comprehended, analytical reasoning.

"The Eye" is the subject of the third article in the series on "The Features of the Human Face," by Sidney Allan, appearing in the January number of *Portrait*. The cover illustration is Mrs. Helen I. Francis of Topea, Kans., a well-known photographer of the middle west.

☆ ☆ ☆

PHOTOGRAMS OF THE YEAR.

The publication of "Photograms of the Year" is an event looked forward to by all interested in pictorial photography throughout the world. The present is the twentieth consecutive year in which the Annual has been issued, and in its new and greatly enlarged form it is a very handsome book indeed.

Upwards of a hundred full-page reproductions of the finest examples of pictorial art with the camera appear between its covers. These are presented by the highest form of printing and in all cases do full justice to the originals. The pictures are in most instances well worth framing, and will prove of the greatest interest, illustrating as they do the progress of pictorial photography and the work that is being done with the camera in all parts of the world.

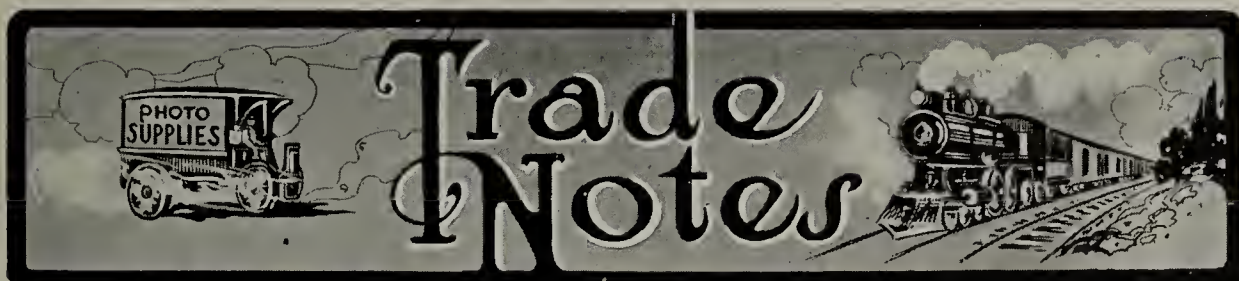
British contributions, of course, predominate, but America, Canada, France, Australia, Japan, Spain, Russia, Scandinavia, Belgium, Holland, Italy, and other countries are represented. As regards the literary contributions, the Editor, Mr. F. J. Mortimer, F.R.P.S. (Editor of *The Amateur Photographer*) deals with the year's work, and has some comments to make on the future development of pictorial photography. A critical causerie on pictures reproduced is contributed by Mr. F. C. Tilney, and a thoughtful article on "Expression in Photography" comes from the pen of Mr. Antony Guest. Pictorial photography in Canada, Australia, the United States, Scandinavia, and Spain is dealt with in separate articles by well-known writers in their respective countries. The entire volume is thus of live interest for all concerned in the possibilities and progress of picture-making by the aid of the camera.

☆ ☆ ☆

We have received a very artistic calendar from our old friend and contributor, Mr. Floyd Vail, which has been decorated with an appropriate winter landscape scene of his own making.



WASHINGTON ARCH, New York. Floyd Vail



[Manufacturers and dealers in photographic goods and supplies are urged to send us descriptive circulars of their new products for presentation in this department.—THE EDITORS.]

Without a doubt the Autographic Kodak is the greatest advance in photography in years. The opportunity to mark the "Who?" "Where?" "When?" and "How?" on each picture has been a great boon to the amateur and increases the value of each picture with each succeeding year. The appreciation for these cameras is best shown by the large number sold during the holiday season. The Eastman Kodak Co. have now introduced the Autographic in sizes No. 1 and 1A of the Kodak Juniors.

☆ ☆ ☆

The Bausch & Lomb Optical Co. have issued a revised edition of the circular H-d on the Ic Tessar lenses for motion picture cameras. This circular is of particular interest to those who have tried to make large pictures of distant objects. The new rack and pinion mount which is illustrated takes lenses from 2" focus up to 7¼", giving various telephoto effects. A postal request directed to the Bausch & Lomb Optical Company, 626 St. Paul Street, Rochester, N. Y., will bring you a copy.

☆ ☆ ☆

Without the Kodak Film Tank what a lot of trouble you would have. The convenience of the tank itself, with the added help of daylight developing, should be sufficient reason why you should have one. If you haven't one there is no time like the present. For sale by all dealers.

☆ ☆ ☆

Learn to be a motion-picture camera operator and earn a liberal salary. Commercial, war, newspaper and government photographers earn big money. Or start a business of your own with little capital. One to three months' instruction by mail or at the school. Instruction is thorough and

practical. Easy terms. Amateur course, \$25. Get full particulars from the New York Institute of Photography, 1269 Broadway, New York City.

☆ ☆ ☆

You can secure at your dealer (free) a little book entitled "By Flashlight." It will pay you to read this book, as it gives a lot of useful information regarding this class of picture taking. It also explains the use of Eastman Flash sheets, the safest of all flashes for night exposures.

☆ ☆ ☆

We call again the attention of our readers to the opportunity offered to secure a subscription to this magazine by the New York Camera Exchange, 111½ Fulton St., New York City. Mr. J. H. Andrews, the proprietor, has issued a Bargain List (No. 19) and to each purchaser of any of the items in this list he is giving without additional charge a subscription to a photographic magazine. We have been favored in the selection by some of his customers, but we feel that others of our readers would do well to look into the bargains he has to offer and secure not only a subscription to our magazine without cost, but some extra photographic equipment of which he may be in need, at considerable saving.

We have known Mr. Andrews for some years and can vouch for his fair and business-like dealings. As a further testimonial, we might add that one of the subscribers recently wrote us advising us that he had purchased some photographic equipment from Mr. Andrews, and that he was perfectly satisfied in every respect, the goods he received being all Mr. Andrews represented them to be, and bought at a price that was really a bargain.

THE PHOTOGRAPHIC TIMES

THE ANSCO LOVELIEST WOMEN CONTEST.

It is hoped that the judges for this most important contest will be able to get together sometime before February 1st. Immense quantities of photographs from all parts of the country have been received and are being sorted so as to facilitate the work of the judges.

The Ansco Company is now erecting a very beautiful booth in the Liberal Arts Building at the Panama-Pacific Exposition, where the prize winning pictures will be shown.

☆ ☆ ☆

The C. P. Goerz American Optical Co.'s Manufoc Tenax Camera is a marvel of Hand Camera Efficiency. It is a small folding hand camera made of aluminum, finished in black leather, with nickel trimmings, and is one of the strongest and most compact cameras in existence. It has a double extension base for focusing objects within a few feet of the camera. The front is adjustable both vertically and horizontally.

The Manufoc Tenax is made in four sizes, $3\frac{1}{4} \times 4\frac{1}{4}$ to 5×7 . The three smallest sizes take single metal plateholders, three holders in a leather wallet being included in the price of the outfit.

☆ ☆ ☆

Recently Mr. Henry Hammer and Richard Salzgeber of the Hammer Dry Plate Co. visited the factories of the Ansco Co. at Binghamton, N. Y., and were amazed at the size and extent of the Ansco plant. "Never in my wildest imaginings did I think that a day would be consumed in hurriedly going through it," Mr. Hammer remarked, to which Mr. Salzgeber replied, "I would rather make dry plates."

☆ ☆ ☆

Chas. G. Willoughby, Broadway and 11th St., New York City, has issued his Square Deal Bargain List No. 126, which contains some very fine bargains in Kodaks and other cameras and Anastigmat lenses. It contains a 75% offer to repurchase within four months from date of sale any article not satisfactory, provided article is equal in condition as when sold, less reasonable

wear. This offer, of course, only applies to articles purchased through his store. Sixteen hundred new Rochester Adjustable Plate Holders have just been purchased, which are selling for less than manufactures cost. An opportunity for every camera owner or dealer.

☆ ☆ ☆

Considerable interest has been aroused regarding the International Exposition of Photographic Arts and Industries under the auspices of the Photographic Dealers' Association of America, which is to be held in the New Grand Central Palace, New York, March 27th to April 3rd.

The principal factor considered in making arrangements was to bring the dealers and manufacturers of photographic apparatus and materials in even closer contact than ever before and at the same time to make it possible to invite the general public to the first exposition of this kind ever held in this country. In and within a radius of a few miles from New York City there is a population of over 7,000,000 people, and in the same territory it has been conservatively estimated there are at least 500 dealers of photographic supplies both large and small. It will therefore be readily seen that New York City is an ideal location for an exposition of this kind, and that the attendance of both the public and the dealers will be a very large one even though no account is taken of those who will come from a distance to enjoy the benefits to be derived from a display of this kind.

The exposition will consist of elaborate exhibits and displays of the merchandise of the manufacturers of photographic apparatus and materials from all over the world, as well as complete displays of merchandise closely allied thereto.

A convention hall in the New Grand Central Palace will be devoted exclusively to the meetings of the Photographic Dealers' Association of America, and will in no way interfere with the exposition proper, the same being open to the public daily between the hours of 11 a. m. and 11 p. m.

The general admission fee will be fifty cents, but at least 150,000 tickets of admission will be given to the exhibitors for dis-

tribution to their customers or in such other ways as they may see fit, thus an attendance of at least 150,000 is assured, a majority of whom will be prospective purchasers or at least vitally interested in photographic materials. This will insure many sales by the manufacturer who exhibits, who in turn can place these, if so desired, with the dealers in attendance. It is conservatively estimated that there will be at least 500 bona-fide dealers and representatives in attendance.

To attract attention to the convention and exposition, and as well increase the attendance of all classes of photographers and those interested in the art from all sections of the United States, working exhibits will be in continuous operation while the exposition hall is open, thus giving those in attendance the opportunity of seeing for the first time the process of manufacturing the products in question.

PRIZE PRINT CONTESTS.

As a further incentive to amateur and professional photographers, prize contests will be held and suitable prizes awarded for the best exhibits of photography in all its branches. In addition to these awards a number of manufacturers have signified the desire of giving special prizes for distribution by the convention committee.

The success of the convention held in Chicago from both the standpoint of the manufacturer and the dealers was such that the attendance for the coming convention will be much larger, and the displays the most elaborate and complete ever shown in the history of the industry.



NEW OPTICAL LENSES.

A new development and easily the highest type of eye lenses yet produced representing what is probably the greatest achievement in optics since the introduction of the anastigmat lens in photography, is the new Punktal Lenses, the exclusive manufacturing rights for the American continent which are held by the Bausch & Lomb Optical Co., of Rochester, New York, American associates of Carl Zeiss, Jena, Germany.

This new series of lenses marks an important epoch in the history of ophthalmic

optics, constituting as it does, one of the most significant contributions to general optics since the invention of the photographic anastigmat. In fact, the new lenses are strictly analogous to the photographic anastigmat, since they render in their field the same service that is performed by the latter in the field of photography. They remove a handicap under which the oculist and refractionist have been compelled to labor for years, by enabling them to prescribe for their patients lenses *equally well corrected from the center to the very margin*.

The word "*Punktal*" is of German origin, meaning in this application a lens which reproduces any given definite point of an object as a *distinct point* in the image. In other words, we have at last obtained an ophthalmic lens which is corrected for astigmatism in *all powers*.

For many years past practically the only improvements in ophthalmic lenses have been in the technique of manufacture. A better finished, more truly standardized product has been developed, but the optical principles employed have remained the same, with the same lack of astigmatic correction and the same narrow visual field of usefulness in all the flat forms.

With the popularization of the Meniscus and Toric lenses there was introduced a better corrected lens and one in which the angle of distinct view was materially increased. This was brought about largely through the publication of the Ophthalmic Lens Chart by the Bausch & Lomb Optical Company in 1912. The underlying principle of grinding each lens to a standard base curve was still employed, however, and as a result a certain amount of astigmatism remained in the greatest number of powers.

Even the flat forms of lenses would be satisfactory, if the eye always remained stationary in its socket and used only the center of the lens. The eye rotates, however, in viewing surrounding objects, and even in reading, and one compelled to wear ordinary lenses can only avail himself of this rotation within restricted limits, according to the form of lens used. As his line of sight moves toward the margin of the lens both blur and distortion are noticed



The Pleasures of Photography

are both broadened and deepened by showing your pictures with the

Bausch^{and} Lomb
BALOPTICON
THE PERFECT STEREOPTICON

You can make lantern slides from your negatives and thus project your pictures on the screen in large size.

Enlarging is both easy and fascinating. Large prints can be rapidly made from small negatives. The Model B Balopticon with a set of lantern slide making and enlarging accessories makes it possible for you to do all these.

The Home Balopticon with its new special Mazda lamp makes an ideal outfit for projection of prints as well as slides. Price . \$45

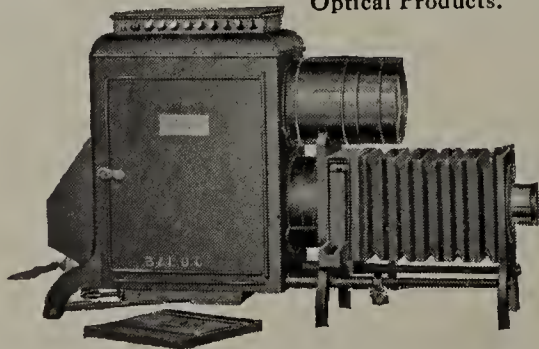
Model B for lantern slide projection . \$22 up

Set of accessories for use with Model B for making lantern slides or enlargements . \$18

Write for our booklets on "Lantern Slide Making," "Enlarging with Model B" and "The Home Balopticon."

Bausch & Lomb Optical Co.
561 ST. PAUL STREET ROCHESTER, N.Y.

Makers of the famous Tessar and Protar Lenses.
Leading manufacturers in America of high-grade Optical Products.



—very pronounced in the flat forms and less pronounced in the ordinary deep curved types.

This blur is caused by the astigmatism of oblique pencils of light. It becomes greater as the line of sight becomes more oblique, until a point is reached at which vision becomes decidedly indistinct. It is also more noticeable as the power of the lens used increases.

Desiring to eliminate all this astigmatism of oblique pencils and recognizing the impossibility of doing so when using a fixed base curve lens for all foci, Dr. Moritz von Rohr, of the scientific staff of Carl Zeiss, Jena, Germany, instituted extensive investigations in this field and published his findings in 1911. He succeeded in correcting for all foci the astigmatism noticeable toward the margin of ordinary lenses by computing the power of each lens and its correction separately.

Problems of manufacture were then undertaken and have now been solved satisfactorily. The result is the new *Punktal* lenses. The word has been registered as a trade mark in the United States by the firm of Carl Zeiss, and patents obtained upon the astigmatic corrections.

The *Punktal* lens, by eliminating all astigmatism, enables the wearer to see objects distinctly within an angle of view of about 60 degrees. The observer is thus enabled to see through the extreme margin of the lens as clearly as through the center.

These lenses are made only in the deep curved forms and stand for the ultra refinement in ophthalmic lens manufacture, representing what may safely be regarded as the highest possible achievement in ophthalmic optics. They are no more difficult in application than the ordinary types of deep-formed lenses now employed.

Inasmuch as *Punktal* lenses are the products of precise workmanship, a guarantee of the accuracy of their curves and surfaces is assured. Each lens therefore bears upon its surface, near the margin, a small trade mark of the Bausch & Lomb Optical Company, which, however, is made so as not to be easily distinguishable with the naked eye, but which can be seen with a hand magnifier, and serves as a mark of identity upon this product.

The Photographic Times

With Which is Combined

The American Photographer and Anthony's Photographic Bulletin

Classified Advertisements

Advertisements for insertion under this heading will be charged for at the rate of 25 cents a line, about 8 words to the line. Cash must accompany copy in all cases. Copy for advertisements must be received at office two weeks in advance of the day of publication, which is the first of each month. Advertisers receive a copy of the journal free to certify the correctness of the insertion.

RATES FOR DISPLAY ADVERTISING SENT ON APPLICATION

THE PHOTOGRAPHIC TIMES PUBLISHING ASSOCIATION,
135 West 14th Street, New York.

Bartholdi Institute Photography

Practical Instruction in Photography,
Photoengraving, Illustrating and
Painting. ESTABLISHED 1880

92 FIFTH AVE. NEW YORK CITY

THE CLARENCE H. WHITE SCHOOL OF MODERN PHOTOGRAPHY

OPEN OCTOBER TO JUNE

Instructors: Paul Lewis Anderson, Max Weber

For information address CLARENCE H. WHITE
230 East 11th Street, New York

BARGAIN SHEET No. 126

Now ready. Ask also for LATEST NEWS
FROM THE FRONT. Get our proposition
before buying anything photographic

WILLOUGHBY & A SQUARE DEAL
810 BROADWAY, NEW YORK

STOP! LOOK!

Our New No. 19 BARGAIN LIST which is now
ready is better than ever. Contains some startling
values in Cameras, Lenses and Photographic Supplies.
Imported Ica and Butcher Cameras. Headquarters
for Cyko Paper.

Write today for FREE COPY
NEW YORK CAMERA EXCHANGE
111½ Fulton Street, New York

HANDY REDUCING PASTE

QUICKEST and SAFEST

For accurate local work on a DRY NEGATIVE

1 Box and Directions, 30 cents

L. C. BISHOP, 508 Dean Bldg., South Bend, Ind.



Learn a Paying Profession

that assures you a good income and position for
life. For 20 years we have successfully taught

PHOTOGRAPHY

Photo-Engraving and Three-Color Work

Our graduates earn from \$20 to \$50 a week. We
assist them to secure these positions. Learn how
you can become successful. Terms easy—living in-
expensive. Write for Catalogue—NOW.

ILLINOIS COLLEGE OF PHOTOGRAPHY
967 Wabash Avenue, Effingham, Illinois

Photographers Sell Post Cards from your negatives. Put them in the stores, there is money in it.

YOU HAVE THE NEGATIVES, WE WILL MAKE THE CARDS

100 from 1 negative, \$ 2.00	from 5 to 10 negatives, \$ 3.25
300 from 1 negative, 4.20	from 5 to 10 negatives, 6.30
500 from 1 negative, 6.25	from 5 to 10 negatives, 8.00
1000 from 1 negative, 10.00	from 5 to 10 negatives, 12.50

Delivery from 3 to 5 days, return postage 10 cents per 100

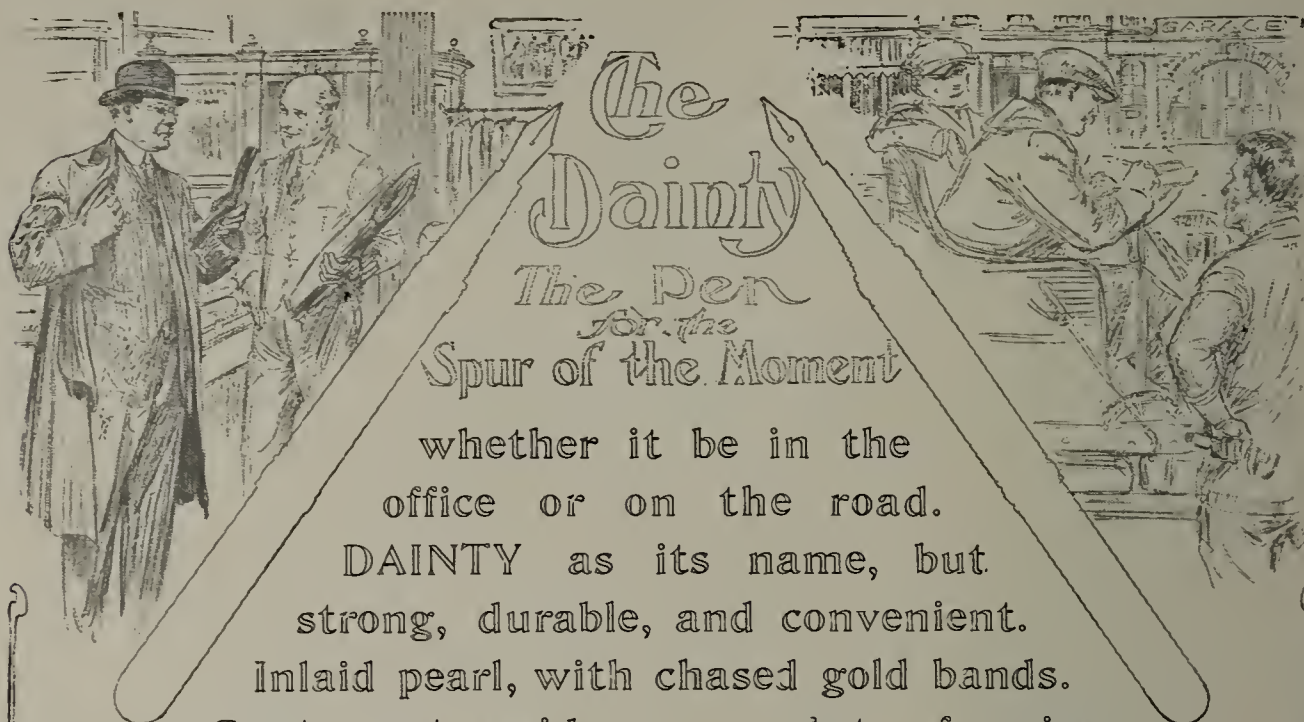
Sample card and complete bargain list of cameras, lenses, etc. free.

A new Post Card size convertible anastigmat lens
in cells, with case, will cover 5 x 7 plate wide open,
\$18.00 post paid.

We take cameras, lenses, etc., in exchange.
Ask us before buying.

WRIGHT PHOTO SUPPLIES RACINE, WIS.

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.

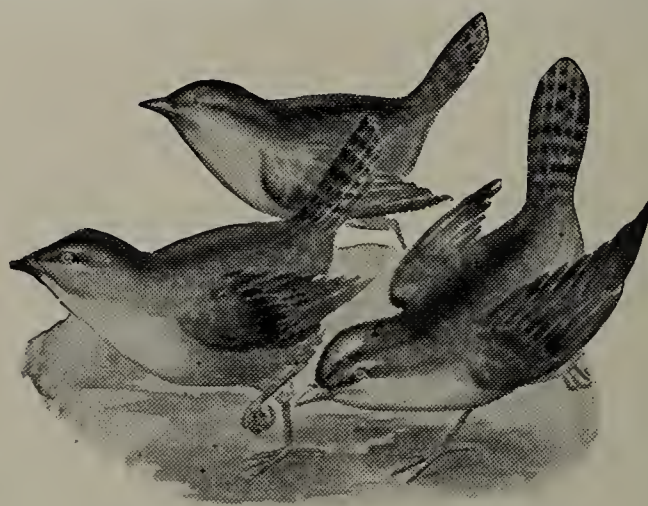


The Dainty
The Pen for the
Spur of the Moment

whether it be in the
 office or on the road.
 DAINTY as its name, but
 strong, durable, and convenient.
 Inlaid pearl, with chased gold bands.
 Sent post paid on receipt of price.

Price, \$2.50.

STYLES & CASH, 135 W. 14th St. NEW YORK



W R E N N ' S
LINTLESS PHOTO BLOTTING, C. P., DOUBLE HARD

W R E N N ' S
BEST BLOTTING

HIGHLY ABSORBENT

CHEMICALLY PURE

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.

Eastman Kodak Company

ROCHESTER. N. Y.. *The Kodak City.*

“That Wonderful Little Camera.”

This extract from a letter written by a gentleman in Philadelphia, who, by the way, is connected with the *Philadelphia North American*, came to our attention a short time ago:

“The Vest Pocket Kodak, that wonderful little camera, bought as a ‘plaything’ for my son, I find myself using it to the exclusion of my plate camera, inasmuch as the majority of negatives stand unbelievable enlargement.”

All that is necessary to convince one of the practicability of the Vest Pocket Kodak is a personal acquaintance with it. It's the very essence of efficiency. So small and smooth that it will readily slip into the vest pocket, so dainty that it is perfectly at home in a lady's hand bag—the Vest Pocket Kodak may always be carried where a larger camera would sometimes be an inconvenience. This is one reason why the gentleman from Philadelphia found himself using it to the exclusion of his heavy plate camera. Many people carry it all the time exactly as they carry a watch. If you have room for a watch, you have room for a V. P. K. You don't know it's there till you want it and think of the picture possibilities you have missed because you didn't have a camera with you.

The Vest Pocket Kodak should not form the entire photographic equipment. This is asking too much of it. There are plenty of photographic situations that the larger Kodaks can cope with more satisfactorily than can the V. P. K. On the other hand, there are many occasions that a larger camera is

out of the question, and it is at such times that the V. P. K. fulfills its destiny. It should be a part of every photographic equipment—and it is proving itself to be a very important part.

The V. P. K. gives rectangular pictures, $1\frac{5}{8} \times 2\frac{1}{2}$ inches, but to quote our friend from Philadelphia, “the majority of the negatives stand unbelievable enlargement.” The pictures in their natural size are very satisfactory, but to enlarge them to post card size is a perfectly simple operation. The Vest Pocket Enlarging Camera has been constructed for this one size enlargement and performs the operation most simply. It's almost as easy as making the contact print. Of course Vest Pocket negatives are not limited to post card size enlargement and we imagine our Philadelphia friend, for example, has had some very successful results with, let us say, 8×10 enlargements. Post card size, however, has always been the most popular size for amateurs, and Vest Pocket negatives and the Vest Pocket Kodak Enlarging Camera prove a very successful combination.

All good Vest Pocket negatives will stand enlargement but the microscopic definition so desirable in this kind of work is best secured with the Vest Pocket Kodak, fitted with the Kodak Anastigmat

$f.8$, a lens ground from the finest glass and submitted to those same rigid tests that have helped to make Kodak another name for reliability. Kodak Anastigmat $f.8$ is free from astigmatism, and



*Vest Pocket Kodak
Actual Size.*

(1)

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

cuts sharp clear to the edges of each negative. In short, it is an anastigmat of the highest quality possible and at *f.8* will do just what any anastigmat will do, regardless of price.

The Vest Pocket Kodak is a fixed focus Kodak—is ready for business just as soon as you are. It has two instantaneous speeds, 1/25 and 1/50 of a second as well as time and bulb action. It has a brilliant reversible finder and uses Kodak Film cartridges of 8 exposures. Mechanically it is as right as a full-jeweled watch, photographically, in its own sphere, it could hardly be improved upon.

The only man who could possibly be dissatisfied with the Vest Pocket Kodak would be the man who bought it for a plaything and really wanted a plaything. He *would* be disappointed.

THE PRICE.

Vest Pocket Kodak, Meniscus Achromatic Lens, - - - -	\$ 6.00
Vest Pocket Kodak, Kodak Anastigmat Lens, <i>f.8</i> , - - - -	10.00
Vest Pocket Kodak Enlarging Camera, - - - -	1.75

THE CHARM OF THE HOME MAKES THE CHARM OF HOME PHOTOGRAPHY.



Kodak Portrait Attachment.

There was once a globe trotter who had traveled pretty much everywhere with a Kodak as a constant companion.

He had taken wonderful pictures of French cathedrals,—this was before the war,—and English castles, and bits of Swiss and Italian scenery—the most glorious views in the world had been faithfully recorded by his trusty Kodak. You can imagine what a wonderful photographic collection this man had and yet his favorite picture, the one he treasured the most, was not a rugged Alpine pass or a stately English castle, but a picture of his pet cat comfortably curled up on the big window seat—one of those typical home scenes portrayed through the medium of the Kodak Portrait Attachment. After all it's the little stories of home life, the intimate things that identify our home from everybody else's, that make the strongest appeal. It's the charm of the home that makes the charm of home photography, and it's the Kodak Portrait Attachment that makes home photography possible for every amateur.

The Kodak Portrait Attachment is just another lens, which, when slipped on over the regular lens equipment, enables you to work so close to your subject that it may be made to occupy a good part of the area of the picture. The attachment makes the lens cut sharp at short distances—with the Folding Kodaks a subject only 2 ft. 8 inches away may be brought into focus. Subjects, that with the ordinary lens equipment appear too small in the pictures to be completely satisfying, may now be made to assume the required proportions.

Perhaps, for example, you want a picture of a vase of flowers. With the regular lens equipment the resulting photograph shows a fine picture of the piano and the Morris chair, beside which the vase seems woefully insignificant. With the Kodak Portrait Attachment the vase of flowers could be made the principal object of the picture.

It gives you enlargements at first hand—and costs but fifty cents.

(2)

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.

Eastman Kodak Company

ROCHESTER, N. Y., *The Kodak City.*

"BY FLASHLIGHT."

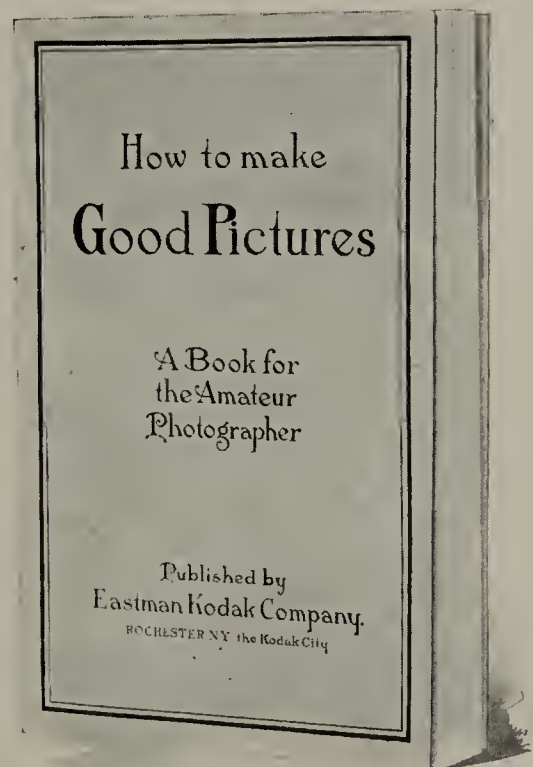
There is a little book called "By Flashlight" that is waiting for you at your dealer's. It won't cost you anything—in fact, it will pay you to read it. It isn't merely a manual. It does not contain a lot of cut-and-dried directions. It's brimful of flashlight information written in understandable language and readable style. There are many illustrations—half-tones and diagrams—and they contribute their full share toward bringing the story home. In short, the booklet covers flashlight from "f" to "t" and a careful reading of its contents enables the amateur to make a success of night work from the very start.

It is to be regretted that some people still let picture possibilities slide away, evening after evening, while their Kodak boils inwardly at this neglect. At this time of the year, particularly, almost every evening fairly bulges with opportunities for the kind of pictures you will treasure most—evening parties or "just some of the crowd who drop in", fireside groups, the comfortable scene in the library with father immersed in his newspaper and the younger generation grinding out tomorrow's lessons, pictures of sleeping children—this is the sort of picture that tells a story, and the picture that tells a story is the picture worth while.

Flashlight work has been made very simple through the agency of Eastman Flash Sheets, the successful manipulation of which offers no difficulty. The sheets burn slowly and give a broad, soft light, ideal for every purpose except where absolutely instantaneous exposures are required. Eastman Spreader Flash Cartridges provide absolutely instantaneous exposures, but the amateur will meet few photographic situations which he cannot cope with most satisfactorily with Eastman Flash Sheets. For the sake of convenience,

it is recommended that the sheets be used with the Kodak Flash Sheet Holder, a very practical device which may be held in the hand or supported by a tripod. By means of this holder, the flash sheet is ignited from behind a metal shield, with the shield between the operator and the flash.

The Book that takes the Place of Experience



A PRACTICAL and instructive book in which the essentials of good picture making are given in such a clear way and illustrated in such an interesting and understandable manner that the right methods of working become simple from the start.

How to Make Good Pictures, paper covers, \$.25
Do., Library Edition, cloth covers, - - 1.00

At your Dealer's

(3)

It looks like paper but it sticks like glue.



Kodak Dry Mounting Tissue

provides a clean, sure method for mounting prints—excellent for card mounting and particularly adapted for album work.

It insures perfect contact, will not cause curling or warping even on the thinnest mount and is easy and convenient to handle.

Just tack a piece of the tissue to the back of the print by touching with the point of a hot iron, trim the print and the tissue together, cover with blotter and press with hot iron. Your print is mounted and mounted *right*.

A recent reduction in the price of Kodak Dry Mounting Tissue makes it as inexpensive as it is efficient.

THE PRICE.

	Package	Per Package	Per Gross		Package	Per Package	Per Gross
2¼ x 3¼,	3 doz.,	\$.08	\$.20	4 x 5,	2 doz.,	\$.08	\$.40
2½ x 4¼,	3 "	.08	.25	5 x 7,	1 "	.08	.80
3½ x 3½,	3 "	.08	.25	6½ x 8½,	1 "	.12	1.20
3¼ x 4¼,	3 "	.08	.25	8 x 10,	1 "	.15	1.50
3¼ x 5½,	2 "	.08	.40				
5 yards, 20 inches wide, per roll,				-	-	-	\$.55

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.

At your dealer's.



No. 1A Autographic Kodak Junior.

*With the introduction
of Nos. 1 and 1A
Autographic Kodak
Juniors, the line of*

Autographic KODAKS

*in the popular sizes
is complete.*

DESPITE the fact that the Autographic feature enabling you to date and title your negatives when you make them greatly increases the value of the Kodak to the amateur, the advance in price over the regular models is slight, and there is no advance in the price of film.

The autographic record appearing in the margin below the negative answers, for all time, the questions "Who?" "When?" "Where?" or "How?" The occasion or place, interesting facts about the children, the stop, exposure and date, a friend's autograph under his portrait—this is the sort of data that, incorporated in an autographic record, increases the value of the picture with each succeeding year.

Inasmuch as the autographic attachment is an exclusive feature of the Kodak, it may be inferred at once and rightly, that its operation is simplicity, itself. Open the little door at the back of the Kodak, write what data you choose, expose to the light of the sky and you will find, upon development, the record photographically imprinted below the negative.

The new Autographic Booklet is out and may be obtained from your dealer or from us, by mail.

THE PRICE.

No. 1 Autographic Kodak Junior, with meniscus achromatic lens and Kodak Ball Bearing shutter, - - - - -	\$ 9.00
Do., with R. R. lens, - - - - -	10.50
No. 1A Autographic Kodak Junior, with meniscus achromatic lens and Kodak Ball Bearing shutter, - - - - -	11.00
Do., with R. R. lens, - - - - -	13.00
No. 1A Autographic Kodak, R. R. lens, Kodak Ball Bearing shutter, - - - - -	17.50
Do., Anastigmat lens, <i>f</i> .8, - - - - -	22.50
No. 3 Autographic Kodak, R. R. lens, Kodak Ball Bearing shutter, - - - - -	20.00
Do., Kodak Anastigmat lens, <i>f</i> .8, - - - - -	25.00
No. 3A Autographic Kodak, R. R. lens, Kodak Ball Bearing shutter, - - - - -	22.50
Do., Kodak Anastigmat lens, <i>f</i> .8, - - - - -	27.50

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.

At your dealer's.

*The big
link in the
Kodak chain
of daylight
all the way.*



THE KODAK FILM TANK

Aside from the convenience of the Kodak Film Tank by which you can develop your films anywhere, in broad daylight, the fact that tank development yields you the best possible negatives, in every case, is the one point that drives the story home.

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

At your dealer's.

THE PHOTOGRAPHIC TIMES PRINT COMPETITION

ON account of the continued success of the Revived Print Competition, the Editorial Management of THE PHOTOGRAPHIC TIMES will continue these pictorial contests until further notice.

The next contest will be closed on March 30th, 1915, so as to be announced in the May Number with reproductions of the prize winners and other notable pictures of the contest. The prizes and conditions will be the same as heretofore, as follows:

First Prize, \$10.00

Second Prize, \$5.00

Third Prize, \$3.00

And three honorable mention awards of a year's subscription to
THE PHOTOGRAPHIC TIMES.

In addition to which those prints which deserve it, will be Highly Commended.

CONDITIONS:

The competition is open freely to all who may desire to compete, without charge or consideration of any kind. The subject for this competition is "Winter Landscapes."

Prints in any medium, mounted or unmounted, may be entered. As awards are, however, partly determined on possibilities of reproducing nicely, it is best to mount prints and use P. O. P., or developing paper with a glossy surface. Put the name and address on the back of each print.

Send particulars of conditions under which pictures were taken, separately by mail, also marking data on back of each print or mount. Data required in this connection: light, length of exposure, hour of day, season and stop used. Also material employed as plate, lens, developer, mount and method of printing.

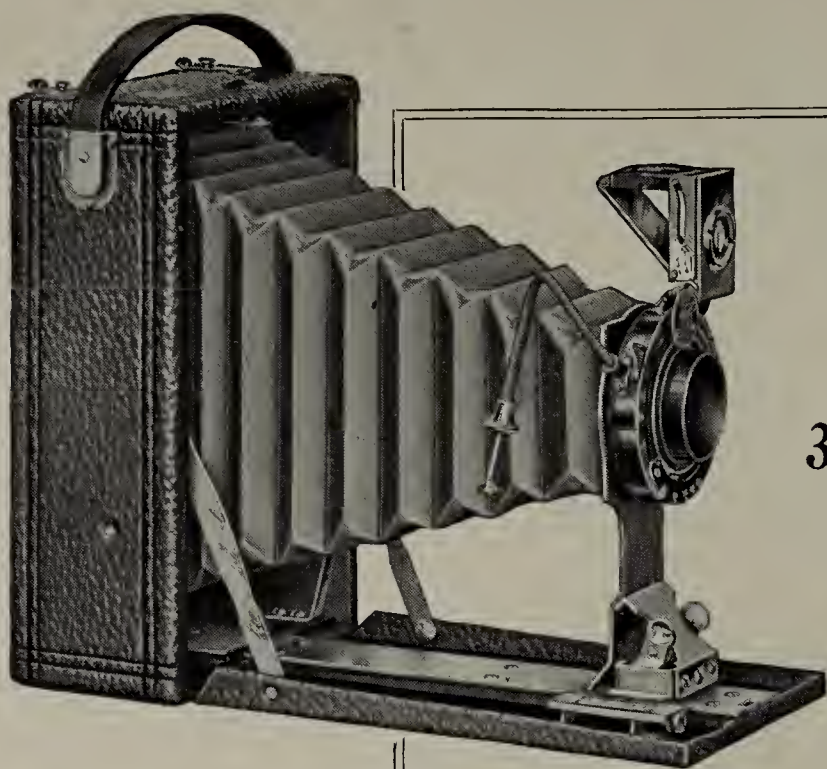
NO PRINT WILL BE ELIGIBLE THAT HAS EVER APPEARED IN ANY OTHER AMERICAN PUBLICATION.

All prints become the property of this publication, to be used in THE PHOTOGRAPHIC TIMES, as required, to be reproduced either in our regular pages or criticism department; credit will, of course, be given, if so used: those not used will be distributed, pro rata, among the hospitals of New York, after a sufficient quantity has been accumulated.

We reserve the right to reject all prints not up to the usual standard required for reproduction in our magazine.

Foreign contestants should place only two photos in a package, otherwise they are subject to customs duties, and will not be accepted.

All prints should be addressed to "THE JUDGES OF THE PHOTOGRAPHIC TIMES PRIZE PRINT CONTEST, 135 West 14th Street, New York, N. Y.," and must be received not later than March 30th.



An ideal vacation
camera, making
 $3\frac{1}{4} \times 5\frac{1}{2}$ (post card size)
pictures, for
\$10.50

*Loads in day-
light*

*Weights only
29 ounces*

*Dimensions
 $2\frac{3}{8} \times 4\frac{5}{8} \times 7\frac{1}{8}$
inches*

*Covered with
genuine grain
leather*

Film Premo No. 1

A remarkably light, compact camera for pictures of the artistic 3A proportion.

Can be carried and used anywhere, and is so easy to operate that anyone who can read the simple instructions that come with the camera, can make first-class pictures from the very start.

To load, merely open back, drop in Premo Film Pack, close back and all is ready. To change films for successive exposures just pull out successive film pack tabs.

This model is fitted with a tested meniscus achromatic lens of the highest quality obtainable. The shutter is the new Kodak Ball Bearing with cable release, and the camera is fitted with two tripod sockets, reversible brilliant finder, and is made throughout of the best of materials, by men who have spent their lives in camera making.

Get the new Premo catalogue—a book that no one interested in photography should be without. It describes the many Premo advantages fully—the daylight loading Film Premos, the Premos that take films or plates with equal facility, the Premo Film Pack and tank developing system. It's free at the dealer's, or will be gladly mailed to any address on request.

Rochester Optical Division

Eastman Kodak Company

Rochester, N. Y.

Quick and Dependable under the most trying conditions.

Hammer's Special Extra Fast (red label) and Extra Fast (blue label) Plates give the biggest photographic values with the shortest exposures.



Hammer's little book, "A Short Talk on Negative Making," mailed free

HAMMER DRY-PLATE COMPANY

Ohio Avenue and Miami Street

St. Louis, Missouri

Established 1840.

Incorporated 1892.

Joseph Parker & Son Company

Manufacturers of

TREASURY

COMMERCIAL

and **CAPITOL**

BLOTTING PAPERS

Made in Highest Photo. Finish
and Chemically Pure.

27 Elm Street = = New Haven, Conn

EVERY *DEALER* AND *USER* OF PHOTOGRAPHIC MATERIALS
SHOULD ARRANGE NOW TO ATTEND AMERICA'S FIRST

*International
Exposition of Photographic Arts
and Industries*

NEW GRAND CENTRAL PALACE
NEW YORK CITY

MARCH 27th to APRIL 3rd

Under Auspices of
Photographic Dealers' Association of America
Held in Connection with the
Third Annual Convention Photographic Dealers'
Association of America

The latest improved Photographic Appliances and Materials of greatest merit will
be exhibited and practical demonstrations made by American and
Foreign Manufacturers, Jobbers and Dealers

National Professional and Amateur Print Contests
will also be held during this Exposition. All professional and amateur photog-
raphers are invited to enter same. Valuable prizes and awards
will be made

*In no other Exposition of any kind can a person find so much of vital
interest and real benefit to repay them for a visit*

For further particulars address
Exposition of Photographic Arts and Industries
New Grand Central Palace
46th Street and Lexington Avenue, New York City

25 CENTS

WILL BRING YOU THE
*Amateur Photographer's
Weekly*
FOR THE NEXT
3
MONTHS

That means that you will get **13 copies** of a photographic journal that is written from the point of view of the beginner in photography.

You will find more features in the *Amateur Weekly* than in any other magazine you can buy for \$1.50 per year. **Cash prize competitions** are offered every week, articles that you can easily understand, and which will tell you how you can avoid wasting plates and paper, a Print Exchange, many illustrations accompanied by full data, Ye Olde Curiosity Shoppe, and many other features.

When you send a print in for competition and want to know how it compares with other prints sent in, we send you a rating card, judging the print for Composition Pictorial Quality, etc., so that you can find out where your faults lie and improve them. With the new year other features are to be inaugurated of like value to the amateur who wants to improve his photographic work.

We send no sample copies, because the value of a magazine cannot be judged from one copy. 25 cents is a small sum and invested in a three months' trial subscription to the *Amateur* you will find it return a hundredfold. **Send it to-day.**

A three months' trial subscription.....	\$.25
In Canada.....	.38
Regular subscription price per year	1.00
In Canada.....	1.50

Check, U. S. stamps, money order, coin,
any convenient form of remittance.

The
**Amateur Photographer's
Weekly**

917 Schofield Bldg. Cleveland, Ohio



LEARN PHOTOGRAPHY IN ALL ITS BRANCHES AND PHOTO-ENGRAVING

Earn \$50 to \$100 weekly as a Motion Picture Photographer. Earn \$20 to \$50 weekly as a Studio Operator. Newspaper or War Photographer, Official Government Photographer, Photo-Engraver, or start a business of your own, practically without capital.

Full term 1 to 3 months. No book study. Practical demonstration. We assist you to positions.

AMATEUR COURSE \$25.

Men or women call or write for Booklet

NEW YORK INSTITUTE OF PHOTOGRAPHY

1269 Broadway, at 32nd Street, New York

Founded and directed by E. BRUNEL.

Hurd's Lawn Finish is the finest type of the fashionable fabric papers. Its quality is the best; it is beautiful in appearance, and the writing surface is exceptionally pleasing.

Hurd's Suede Finish represents the best quality in the medium smooth finish, and is much in fashion. It is also the finest wedding paper made. We carry a large stock of these fine papers.

STYLES & CASH,
135 West Fourteenth Street.
New York.



**Get it—with
a GOERZ!**

You get a never-failing series of brilliant pictures with maximum depth of field and sharp definition from center to corners with

GOERZ

LENSES CAMERAS

Speedy? Nothing gets away from them. They are standard with professionals and with amateurs who demand quality first. You will find your dealer glad to talk Goerz goods to you NOW—and the New Tariff lowers price

Send for article, "The Optics of Lenses," in our Illustrated, Descriptive Price Catalogue

C P GOERZ AMERICAN OPTICAL CO.
No 000 East 34th Street New York City

“Sunlight and Shadow”

(By W. I. LINCOLN ADAMS)

So long as the supply holds out we will continue to furnish the book at only **one dollar per copy**, with a new subscription to

“The Photographic Times”

Regular price of “Sunlight and Shadow,” \$2.50

Regular Subscription price of “The Photographic Times” 1.50 \$4.00

By this Special Offer we sell Both for . . . \$2.50

which is the regular price of ‘Sunlight and Shadow’ alone;
so you get The Photographic Times in this way for nothing.

There are only a limited number of copies left so you must send in your order at once if you want to be sure of securing your Photographic Times and a copy of Sunlight and Shadow at this special price. This is the remainder of the third edition of Sunlight and Shadow.

It contains Chapters and Illustrations by such well-known photographic writers as

H. P. ROBINSON	ALFRED STIEGLITZ	A. HORSLEY HINTON
R. EICKEMEYER, Jr.	W. B. POST	J. WELLS CHAMPNEY
B. J. FALK	ALEXANDER BLACK	W. A. FRASER
HER GRACE THE DUCHESS OF SERMONETA		

and the MARQUIS DE ALFARRAS

It covers the field fully, as shown by the following CONTENTS

The Choice of Subject	Out-Door Portraits and	Marines
Landscape Without Figures	Groups	Photography at Night
Landscape With Figures	The Hand Camera	Lighting in Portraiture
Foregrounds	Instantaneous Photography	Photographing Children
The Sky	Winter Photography	Art in Grouping

Printed on heavy wood-cut paper, with liberal margins and gilt edges.
Beautifully and substantially bound in art canvas, with gilt design.

Photographic Times Publishing Association

135 West Fourteenth Street, New York

USE
WHITING PAPERS

Bonds Linens
Ledgers Superfines
Fines

IN WHITE AND COLORS

WHITING PAPER CO.

Lafayette and Howard Streets . . . New York
Mills · Holyoke, Mass.

“PHOTO FINISH”

“World” Blotting

THE ORIGINAL

THE PUREST AND BEST BLOTTING FOR PHOTO-
GRAPHIC PURPOSES, CHEMICALLY PURE
AND NON-LINTING

For sale by all leading dealers

MADE BY

The Albemarle Paper Manufacturing Co.

RICHMOND, VIRGINIA, U. S. A.

A Few Copies Left of the First Edition of “*PHOTOGRAPHY*”

BY

E. O. HOPPE, F. R. P. S., and others

We shall continue to sell these works as long as the supply holds out, at

TWO DOLLARS PER COPY

The New Edition will sell at \$3.50 per copy.

This is a Standard Work. It includes original photographs by the authors and examples from the work of J. Craig Annan, Will Cadby, Alvin Langdon Coburn, Rev. D. G. Cowan, M. A., J. W. Church, H. S. Cheavin, F. R. M. S., Dr. W. M. Daniels, Rudolph Duhrkoop, Frederick H. Evans, W. H. Rogers, T. M. Weaver, and Miss R. M. Whitlaw.

This is a handsomely illustrated and entirely practical volume of over four hundred pages.

The completeness of the book may be seen by the list of subjects which are treated:

Introductory and Historical
The Dark Room
The Camera
The Optics of Photography (in 3 Parts)
On Selecting a Lens
Focusing the Image
The Laws of Pictorial Composition
Exposure
Development of the Negative
Time Development
The Chemical Theory of Exposure and Development
Orthochromatic Photography
Indoor Photography
Portraiture: Materials
Portraiture: Lighting and Posing
Portraiture: General Remarks
Architectural Photography
Architectural Interiors
Defects in the Negative and their Remedy
Gelatino-Chloride Printing-Out Paper
Collodion, Albumen and other Silver Papers
Platinotype
Bromide and Gaslight Papers
The Carbon Process
The Gum-Bichromate Process
Oil Processes

Miscellaneous Printing Processes
Hand Cameras
Reflex Cameras
Stereography
Enlarging
Lantern Slides
Photo-Micrography
The Pinhole Camera
The Wet-Plate Process
Emulsions for Dry Plates and Films
Photography in Natural Colours
Three-Colour Negatives
The Lippmann Process in Practice
The Colour Salt
Animated Photography
Photo-Engraving, Collotype, Etc.
Retouching
Photography by the X-Rays

Appendices:

Chemicals in general use in photography
Miscellaneous notes and formulae
Tables of weights and measures
Diaphragm numbers
Thermometric table
Table of distances for enlargements
Table of comparative speed numbers of plates
Index

Two of the illustrations are coloured plates. The book is handsomely bound in half red leather. Price, \$2.00. Will be sent to any address, carriage paid, on receipt of Price by

The Photographic Times Publishing Association

135 West 14th Street, New York City

(Who are the American publishers of this book)



STAMPED

with quality—every pound of printing ink that leaves our establishment: mixed with quality of materials and brains, too. The kind of ink that lessens the worry of the man at the desk—the superintendent—the foreman—and the pressman. We never knew how to make any other kind of ink.

If Sinclair & Valentine Co.'s label is on the can, the contents will please your man.

Send us your order for any special inks—no matter what shades or for what processes—we will guarantee to make them right—*and*—make them satisfactorily.

Tell us your ink troubles and we will disperse them.

SINCLAIR & VALENTINE CO.

Main Office and Factory: 605-611 West 129th Street, New York.

Down-town Branch: No. 168 Centre Street, N. Y.

Philadelphia

Boston

Chicago

St. Louis

Cleveland

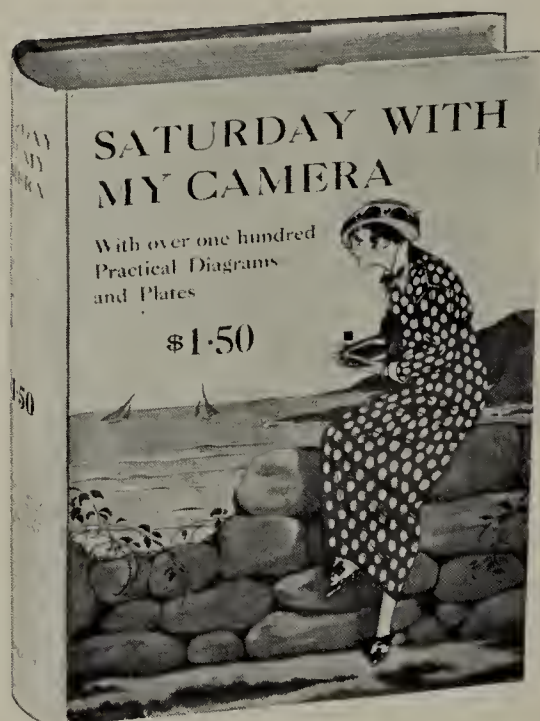
Denver

Toronto

"Saturday With My Camera"

By

STANLEY C. JOHNSON, M. A. D., Sc.



JUST the book for the Amateur. Its 444 pages are full of helpful hints covering all classes of subjects. It is illustrated with more than 100 practical diagrams and plates. Formulae are given for many different processes. A new field is opened for the amateur who previously had hesitated on account of not knowing exactly how to proceed on new subjects.

AN IDEAL GIFT

For the beginner or the advanced worker in photography

The retail price of this book is \$1.50



As a special inducement we will include Saturday With My Camera (\$1.50), with a year's subscription to the Photographic Times (\$1.50) for **\$2.50**

OR

A year's subscription to Lippincott's Magazine (\$3.00), a year's subscription to the Photographic Times (\$1.50), and Saturday With My Camera (\$1.50) for **\$3.85**

The Photographic Times Publishing Association

135 WEST 14th STREET, NEW YORK



The Highest Art of Photography

For the swiftness of the aeroplane—just as for every other subject where speed and detail are factors—you need the

Bausch^{and} Lomb Zeiss TESSAR LENS

“MASTER OF SPEED AND LIGHT”

Series Ic Tessar F:4.5 gives success under conditions that are ordinarily impossible in photography. The speed of the Ic Tessar is three or four times greater than ordinary lenses. This lens is, therefore, the ideal selection for speed cameras of the reflecting type.

The Ic Tessar opens up a new field of possibilities in photography, such as exposures under weak lights or on dark days or ultra speed pictures such as athletic events, auto races, aeroplanes and the like.

The Iib Tessar F:6.3 is a fast Anastigmat, particularly suitable for the ordinary type of compact hand cameras. It is 61% to 100% faster than the ordinary lens equipments, and in addition it is free from the troublesome defects, such as astigmatism, or lack of covering power in the corners, distortion, etc. The Iib Tessar, in connection with the well known Compound Shutter, transforms a compact hand camera into an instrument of wonderful precision.

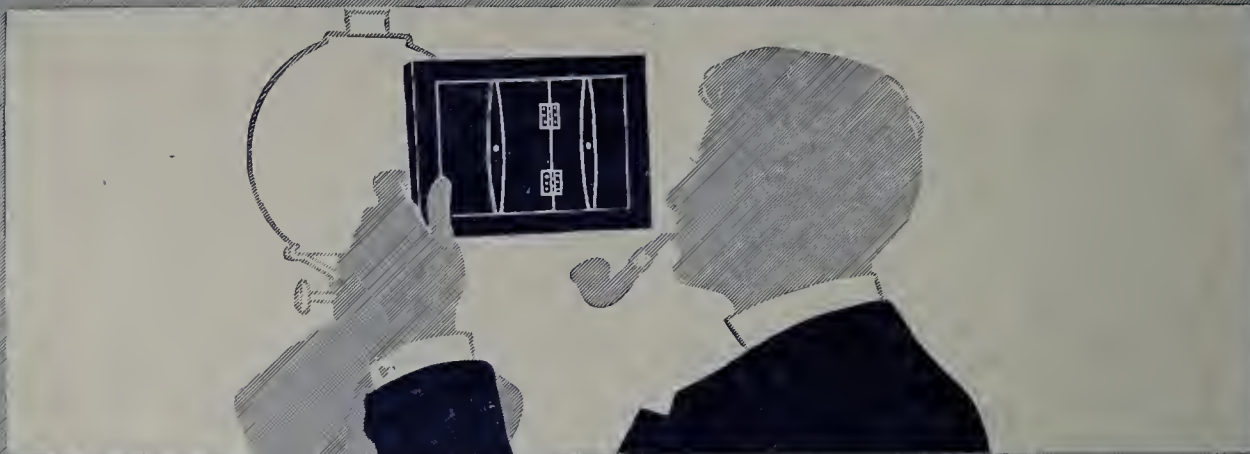
Our illustrated catalog and valuable information about photographic lenses will be sent on request. Speak to your dealer about Tessar lenses—you can try one on your camera.

Bausch & Lomb Optical Co.

626 ST. PAUL STREET ROCHESTER, N.Y.

Leading Manufacturers in America of Stereo Prism Field Glasses, Projection Lanterns (Balopticons), Microscopes, Engineering Instruments, Ophthalmic Lenses and other high grade optical products.

When writing to advertisers please mention THE PHOTOGRAPHIC TIMES.



Prints by Gaslight

*What's in the negative comes out
in the print when you use*

VELOX

THE AMATEUR'S OWN PAPER

Latitude enough to take care of reasonable errors in exposure—a gradation that gives the best possible print from every negative.

NEPERA DIVISION,
EASTMAN KODAK COMPANY,
ROCHESTER, N. Y., *The Kodak City.*

At your dealer's.